

# PLB 116 Winter 2005

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## Lab 1 Review Of Anatomy And Life Cycle

Jan 6, 2005

Quantity	Plant Material	Date planted	Days	Directions
1-7.5" pot	Corn pollen	Nov 11, 2004	56	5 seeds/pot 3pl/pot
1-7.5" pot	Corn pollen	Nov 6, 2004	61	5 seeds/pot 3pl/pot
1-7.5" pot	Corn pollen	Nov 16, 2004	51	5 seeds/pot 3pl/pot
1	Equisetum	Jan 6, 2005		
1	Fern	Jan 6, 2005		
1	Fern	Jan 6, 2005		
	Fern gametophytes. Some with	Jan 6, 2005		
40 seed	Pea seed	Jan 5, 2005	1	Soak in tray of water.
	Pine branch with old cones	Jan 6, 2005		

## Lab 2 Charophyta, Bryophytes, Rhyniophyta

Jan 11, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Anthoceros (hornwort)	Jan 11, 2005		
	Chara or Nitella	Jan 11, 2005		
	Coleochaete on slides, started 11/20	Jan 11, 2005		
	Japanese Psilotum with sporangia on	Jan 11, 2005		
	Marchantia w/sporophytes	Nov 30, 2004	42	For student dissection
	Marchantia with Gemmae	Jan 11, 2005		
	Moss w/sporophytes	Jan 11, 2005		For student dissection
	Moss with tiny, upright sporophytes.	Jan 11, 2005		

## Lab 3 Lycopodium

Jan 13, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Lycopodium lucidulum	Jan 13, 2005		
	Lycopodium squarrosum	Jan 13, 2005		

## **Lab 4 Selaginella, Angle Meristem Experiment**

Jan 18, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Selaginella	Jan 18, 2005		
	Selaginella	Jan 18, 2005		
	Selaginella	Jan 18, 2005		
	Selaginella	Jan 18, 2005		
9 lg flats	Selaginella	Aug 31, 2004	140	Propagate if needed.
	Selaginella	Jan 18, 2005		
	Selaginella martensii (2 flats)and	Jan 18, 2005		
	Selaginella sporelings still attached to	Jan 18, 2005		
	Selaginella, many diverse species.	Jan 18, 2005		

## **Lab 5 Lepidodendrales**

Jan 20, 2005

Quantity	Plant Material	Date planted	Days	Directions
	100 plastic petri dishes of washed	Jan 20, 2005		
	40 4" pots, labels, and sunshine mix, liter	Jan 20, 2005		
	5 species of fern spores to sow--	Jan 20, 2005		
	Fern spores for students	Jan 20, 2005		
	Lycopodium, anything available	Jan 20, 2005		
	No living plants	Jan 20, 2005		
	Sow fern spores	Jan 20, 2005		

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

Jan 25, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Any small plant for molding	Jan 25, 2005		
	Isoetes	Jan 25, 2005		
	Small plant parts for molding demo:	Jan 25, 2005		

## **Lab 7 Psilophyta**

Jan 27, 2005

Quantity	Plant Material	Date planted	Days	Directions
2 pots	Psilotum & gametophytes	Jan 27, 2005		

Psilotum nudum'Bunryuzan'

Jan 27, 2005

**Lab 8 Spenophyta**

Feb 1, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Bring in lots of E. diffusum and one in	Feb 1, 2005		
	E. giganteum	Feb 1, 2005		
	E. giganteum B93.314	Feb 1, 2005		
	E. ramosissimum	Feb 1, 2005		
	E. ramosissimum B85.024 small,	Feb 1, 2005		
2	Equisetum	Dec 18, 2004	45	Move to warm long days. Weier is good for this.
	Equisetum diffusum strobili	Nov 18, 2004	75	Long days for 2-3months
	Equisetum--all available species and	Feb 1, 2005		

**Lab 9 Eusporangiate Ferns**

Feb 3, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Angiopteris pinnae	Feb 3, 2005		
	Angiopteris--lg fern in main room	Feb 3, 2005		
	Botrychium	Feb 3, 2005		
	Botrychium--in 2nd fern room B98.084	Feb 3, 2005		
	Danaea	Feb 3, 2005		
	Macroglossum--1st fern room B89.353	Feb 3, 2005		
	Marattia	Feb 3, 2005		
	Marattia fraxinea--2nd fern room	Feb 3, 2005		
	Ophioglossum	Feb 3, 2005		
2	Ophioglossum	Feb 3, 2005		
	Ophioglossum B59.137	Feb 3, 2005		
	Polypodium chunks	Feb 3, 2005		
	Polypodium plant chunks--lg, hanging in	Feb 3, 2005		

**Lab 10 Filicales**

Feb 8, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Adiantum	Feb 8, 2005		

Asplenium	Feb 8, 2005		
Asplenium, Cionidium	Feb 8, 2005		
Cyrtomium	Feb 8, 2005		
Davallia	Feb 8, 2005		
Davallia--about 10 inches of rhizomes	Feb 8, 2005		
Dennstaedtia	Feb 8, 2005		
Dryopteris	Feb 8, 2005		
Dryopteris, Cyrtomium, Woodwardia w/	Feb 8, 2005		
Fern fronds showing soral and	Feb 8, 2005		
Fronds of Polypodium and	Feb 8, 2005		
Lygodium	Feb 8, 2005		
Lygodium, Osmunda, Dennstaedtia,	Feb 8, 2005		
Osmunda	Feb 8, 2005		
Pityrogramma	Dec 10, 2004	60	Move to Weier greenhouse for long warm days.
Platynerium	Feb 8, 2005		
Polypodium portions	Feb 8, 2005		
Rhizomes of Hypolepis (or Polypodium)	Feb 8, 2005		
Rumohra and Cystopteris	Feb 8, 2005		Can use different genera.
Woodwardia	Feb 8, 2005		

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

Feb 10, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Azolla	Feb 10, 2005		
	Azolla, Marsilea, Pilularia, Regnellidium	Feb 10, 2005		
	fern gametophytes w/ attached	Feb 10, 2005		
30	Fern Gametophytes with sporophytes	Nov 12, 2004	90	Check Oasis blocks for fern Gametophytes
30	Fern Gametophytes without sporophytes	Nov 12, 2004	90	Check Oasis blocks for fern Gametophytes
	Hypolepis rhizomes to section	Feb 10, 2005		
	Marsilea	Feb 10, 2005		
	Marsilea drummondii sporocarps	Feb 10, 2005		
	Pilularia-check 2 weeks ahead to be	Feb 10, 2005		
	Polypodium aureum gametophytes	Feb 10, 2005		

Polypodium dispersum gametophytes Feb 10, 2005

Regnilidium--west of 61. check with Tim Feb 10, 2005

Salvinia--in fern/orchid room and heat Feb 10, 2005

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

Feb 15, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Bowenia (leaf like) B84.298	Feb 15, 2005		
2 - 7.5" pots	Cycads, including seedlings and male	Oct 18, 2004	120	6-8 seeds/pot, cover with sand.
	Cycads, various plants/male and female	Feb 15, 2005		
	Cycas, cycad	Jul 10, 2004	220	Purchase and sow seed
	Dioon sp. B90.482	Feb 15, 2005		
	Encephalartos horridus (spikey one)	Feb 15, 2005		
	small Cycas revoluta B89.003	Feb 15, 2005		
	small Zamia	Feb 15, 2005		
	Stangeria B 89.006	Feb 15, 2005		
	Zamia pumila	Feb 15, 2005		

## **Lab 13 Cycadales And Ginkgo**

Feb 17, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Cycad seedlings again	Feb 17, 2005		
	Cycads, seedlings and female cones	Feb 17, 2005		
2	Ginkgo	Dec 29, 2004	50	Move to long days.
	Ginkgo--forced tree and 6or 7 18"	Feb 17, 2005		

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

Feb 22, 2005

Quantity	Plant Material	Date planted	Days	Directions
	any potted conifers available, including	Feb 22, 2005		
	Araucaria	Feb 22, 2005		
	branches, with cones of: Abies	Feb 22, 2005		
	Calocedrus	Feb 22, 2005		
	Cedrus	Feb 22, 2005		
	Cupressus	Feb 22, 2005		

Juniperus	Feb 22, 2005
lots of 1st and 2nd year cones	Feb 22, 2005
Metasequoia	Feb 22, 2005
Picea	Feb 22, 2005
Pinus coulteri	Feb 22, 2005
Pinus halepensis, 2-3 years of cones.	Feb 22, 2005
Pinus sabiniana	Feb 22, 2005
Pinus torreyana	Feb 22, 2005
Podocarpus, C St bet 5th and 6th	Feb 22, 2005
Pseudotsuga	Feb 22, 2005
Sequoia	Feb 22, 2005
Sequoiadendron	Feb 22, 2005
Taxus	Feb 22, 2005
Thuja, by Mrak	Feb 22, 2005
Torreya, 25 yds west of desert bridge.	Feb 22, 2005

## **Lab 15 Coniferales**

Feb 24, 2005

Quantity	Plant Material	Date planted	Days	Directions
1/4 pound of	Pinyon pine seed	Feb 24, 2005		
3 - 4" pots	Pinyon pine seedlings	Jan 25, 2005	30	5 seed/pot

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

Mar 1, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Ephedra	Mar 1, 2005		
	Ephedra	Mar 1, 2005		
1	Gnetum	Mar 1, 2005		
1	Gnetum, cones if available	Mar 1, 2005		
1/4 pound of	Pinyon pine seed	Mar 1, 2005		
2 seedlings	Welwitschia seedlings with cotyledons	Dec 16, 2004	75	8 - rose pots pumice w/soil at bottom
	Welwitschia, mature plants, seedlings,	Mar 1, 2005		

## **Lab 17 Angiosperm Wood Anatomy and Floral**

Mar 3, 2005

Quantity	Plant Material	Date planted	Days	Directions
2 plants	Asclepias curassavica flowers	Mar 3, 2005		Enter directions here
	Clematis flowers	Mar 3, 2005		
2	Impatiens w/pollen--yellow and red	Mar 3, 2005		
2	Impatiens, simple pink flower.	Dec 3, 2004	90	4 cuttings
	Tradescantia	Mar 3, 2005		
	Tradescantia flowers w/pollen	Mar 3, 2005		

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

Mar 8, 2005

Quantity	Plant Material	Date planted	Days	Directions
2 - 6"pots	Capsella bursa-pastoris	Jan 25, 2005	42	2 - 6" pots, cover w/sand
2 - 6"pots	Capsella bursa-pastoris	Jan 11, 2005	56	2 - 6" pots, cover w/sand
2 - 6"pots	Capsella bursa-pastoris	Feb 8, 2005	28	2 - 6" pots, cover w/sand

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

Mar 10, 2005

Quantity	Plant Material	Date planted	Days	Directions
	1 cantaloupe	Mar 10, 2005		
	1 eggplant	Mar 10, 2005		
	1 mango	Mar 10, 2005		
	1 papaya	Mar 10, 2005		
	1 pepper	Mar 10, 2005		
	1 pineapple--but a week early	Mar 10, 2005		
	10 oranges	Mar 10, 2005		
	2 avocados	Mar 10, 2005		
	2 cucumbers	Mar 10, 2005		
	2 nectarine or peach	Mar 10, 2005		
	2 pears	Mar 10, 2005		
	2 plums	Mar 10, 2005		
	4 bananas	Mar 10, 2005		
	4 kiwi	Mar 10, 2005		

20-30 seed	Asclepias sp. seed with dispersal fibers	Mar 10, 2005	
	bag of apples	Mar 10, 2005	
?	Broad bean seed, Soak for 24 hours.	Mar 10, 2005	Enter directions here
	cherry tomatoes--bsk	Mar 10, 2005	
	coconut	Mar 10, 2005	
1	Corn ear	Mar 10, 2005	Purchase at store
?	Cotton seed, Soak for 24 hours.	Mar 10, 2005	Enter directions here
?	Cucumber or melon seed, Soak for 24	Mar 10, 2005	Enter directions here
	dried figs--pkg. Aisle 7	Mar 10, 2005	
	get purchase order not to exceed \$75:	Mar 10, 2005	
	grapes, seeded if possible	Mar 10, 2005	
	green beans--handful	Mar 10, 2005	
	Interesting fruits from Tim & Doug	Mar 10, 2005	FRUITS AND SEEDS
	interesting fruits from Tim:Asclepias, Pop	Mar 10, 2005	
?	Lupine seed, Soak for 24 hours.	Mar 10, 2005	Enter directions here
	mixed nuts (purchased around	Mar 10, 2005	
	okra, pickled (mild). Aisle 8	Mar 10, 2005	
?	Pea seed, SOAK FOR 24 HOURS.	Mar 10, 2005	
	peanuts--salted in bag. Aisle 7,	Mar 10, 2005	
	pomegranate	Mar 10, 2005	
	raspberries or blackberries--bsk	Mar 10, 2005	
	Seeds: peas, kidney beans, corn radish	Mar 10, 2005	
	Seeds: Barley, Fava, Castor bean,	Mar 10, 2005	FRUITS AND SEEDS
	smoked almonds--can	Mar 10, 2005	
	snow peas--handful	Mar 10, 2005	
	strawberries--bsk	Mar 10, 2005	
	sunflower seeds, salted--bag. Aisle 7	Mar 10, 2005	

## Lab 20 Lab Final

Mar 15, 2005

Quantity	Plant Material	Date planted	Days	Directions
	Lab final, no plants requested	Mar 15, 2005		