

Project title:

Name of group members:

1.	4.	7.	10.
2.	5.	8.	11.
3.	6.	9..	12.

Hypotheses:

1.

2.

3.

4.

Factor 1:	Factor 2:
a) b) c) d)	a) b) c) d)
Provide details of how you are DEFINING each factor.	Provide details of how you are DEFINING each factor.

Write down your list of sites. For each site write how it will be classified for each factor.

Sites	Factor 1	Factor 2
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		

Add more if necessary

Sampling method:

(describe your sampling method – describe how you will be surveying your sites)

Sampling effort:

(describe your sampling effort e.g. # transects, # quadrats, time based)

Species taxonomy:

(list or describe your species in enough detail that every member of your group will be able to clearly identify your taxa to species level).

List the habitat variables that will be collected at each site

Habitat variable	How it will be measured.
1.	
2.	
3.	
4.	
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7.	
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9.	
10.	
11.	
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18.	
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20.	

Add more if necessary

Project Title: Travelling the road to success: Do shopping centres and sports fields support different car communities?

Name of group members:

1.	4.	7.	10.
2.	5.	8.	11.
3.	6.	9.	12.

Hypotheses:

1. The assemblages of cars in car parks surrounding sport fields will be different from the assemblages of cars in car parks near shopping centres.
2. The assemblages of cars found in local government areas (LGA) with high mean income will be different from assemblages of cars in LGA with low mean income. The assemblages of cars in LGA with medium mean income will not differ from the car assemblages in LGA with high or low mean income.
3. Mean scores of principal components derived from habitat variables will differ between car parks adjacent to sporting fields and car parks adjacent to shopping centres (More specific hypotheses pending PCA)
4. Principal components derived from habitat variables will predict car species richness and/or car abundance at each car park. (More specific hypotheses pending PCA)

Factor 1: Car park functionality	Factor 2: LGA mean income
a) Car parks near sporting fields b) Car parks adjoining shopping centres c) d)	a) Low b) Medium c) High d)
Car parks must have at least 25 marked carspaces and at least one side must be adjoining either a sporting field or a multilevel shopping centre.	LGA mean income will be defined using the ABS metric for average individual taxable income (taxable individuals only) for 2010. We define low mean income to be: <\$60000 year; medium between \$65000 and \$90000; high >\$95000

Write down your list of sites. For each site write how it will be classified for each factor.

Sites	Factor 1	Factor 2
Hornsby Westfield (Hornsby LGA)	Shop	Medium
Pennant Hills Park (Hornsby LGA)	Sport	Medium
Rogers Park, Woy Woy (Gosford LGA)	Sport	Low
Deepwater Plaza Shopping Centre, Woy Woy (Gosford LGA)	Shop	Low
Gordon Shopping Centre (Ku Ring Gai LGA)	Shop	High
Golden Jubilee Field, Wahroonga (Ku Ring Gai LGA)	Sport	High
Top Ryde Shopping Centre (Ryde LGA)	Shop	Medium
Meadowbank Park (Ryde LGA)	Sport	Medium
Parramatta Park (Parramatta LGA)	Sport	Low
Westfield Parramatta (Parramatta LGA)	Shop	Low
Boronia Park (Hunters Hill LGA)	Sport	High
Gladesville Shopping Centre (Hunters Hill LGA)	Shop	High
Woollahra Oval (Woollahra LGA)	Sport	High
Eastpoint food fair (Woollahra LGA)	Shop	High
Royal Randwick Shopping Centre (Randwick LGA)	Shop	Medium
Matraville Sports Centre (Randwick LGA)	Sport	Medium
Booralee Park (Botany Bay LGA)	Sport	Low
Westfield Eastgardens (Botany Bay LGA)	Shop	Low

Sampling method:

We will not survey cars in roadside parking, only in car parks with designated car spaces. If car parks are multi-leveled only the ground-level will be surveyed (for both species composition and habitat variables). Each site will be sampled between 10am and 12noon on a Saturday so that we can capture car assemblages associated with children's sport. Each group member will survey 2 car parks in one LGA (ie, one shopping centre and one sporting ground). We will only survey car species that are parked in designated car spaces within the car park.

Sampling effort:

A timed sampling effort will be used. We will survey each site (car park) for car species for 30mins. All habitat variables (except % free car spaces and # of shaded car spots) will be measured after the 30min sampling time.

Species taxonomy:

We will classify cars based on their make (i.e. Ford, Holden, Kia, Nissan, Ferrari, Toyota, Jeep, Subaru etc.) and type. Each car will be classified into 1 of 11 types:

1. 4WD
2. Van
3. sedan
4. station wagon
5. hatchback
6. Convertible
7. People mover (7+ seats)
8. Ute
9. Smartcar and/or mini
10. Sportscar
11. Other

Ford fourwheeldrive	Ford hatchback	Ford smartcar
Ford van	Ford convertible	Ford sportscar
Ford sedan	Ford peplemover	Ford other
Ford stationwagon	Ford ute	

As an example, there will be 11 possible 'species' of car from the 'genus' Ford:

List the habitat variables that will be collected at each site

Habitat variable	How it will be measured.
total # car spaces	Total # of spaces in car park or on ground floor of car park (estimate for large car parks) (continuous)
% available car spaces	# of car spots that were empty during the 30 min survey period/(#free spaces + # individual cars counted in 30 min) x 100 (continuous)
# of lights	# of individual light sources (continuous)
# of trees/shrubs	# of individual trees or shrubs within the boundary of the car park (continuous)
# of bins	# of bins within the boundary of the car park (continuous)
# of exits	# of exits for the car park (whole car park) (continuous)
cost/hr	0 = free; 1 = $x < \$3$; 2 = $\$3 < x < \5.99 ; 3 = $\$6 < x < \8.99 ; 4 = $9 < x$ where x is the average fee/hour (ignore timed free parking in shopping centres). (ordinal)
timed parking	1 = $x < 15\text{min}$; 2 = $15\text{min} < x < 59\text{ min}$; 3 = $1\text{ h} < x < 2\text{ h}$; 4 = $2\text{ h} < x < 4\text{ h}$; 5 = untimed where x is the maximum allowed parking time and/or time without payment (ordinal)
area of car park	Total area of the car park (m ²) – measured from satellite images (GoogleEarth) (continuous)
% man made cover	Man –made cover only – includes roofs, shade covers, awnings etc. 0 = no cover; 1 = 1-25% cover; 2 = 26 – 50% cover; 3 = 51-75% cover; 4 = 76-99% cover; 5 = 100% cover. Estimate. (ordinal)
# of car spots in shade	# of car spots in the 30 min sampling time that have over 33% shade. (continuous)
Secure parking	Is the car park secure (i.e. boom gate/ticket gate/valet/security person present)? 0 = not secure' 1 = secure (presence/absence)
Glass on ground	Is there smashed glass on the ground? 0 = no, 1 = yes (presence/absence)
# of rubbish items	# of individual rubbish items found within the survey area of the car park. (Cigarette butts or small pieces of glass not included) (Continuous)

Add more if necessary