

## MAP KEY

- A:** Palo Brea Tree
- B:** Ocotillo 1
- C:** Ocotillo 2
- D:** Barrel Cactus 1
- E:** Barrel Cactus 2
- F:** Creosote Bush 1
- G:** Creosote Bush 2
- H:** Kumquat Tree



# NATURE'S NOTEBOOK FIELD GUIDE

## GROUP NAME: MANZO ECOLOGY COURTYARD

**Scientific Name:** *Parkinsonia Praecox*

**Nickname:** Palo Brea Tree

**Site:** Manzo Ecology Courtyard

**Location:**



**Leaves:**



**Flowers or Flower Buds:**



**Fruits and Dried Fruits (Seed Pods):**





# NATURE'S NOTEBOOK FIELD GUIDE

## GROUP NAME: MANZO ECOLOGY COURTYARD

**Scientific Name:** Fouquieria Splendens

**Nickname:** Ocotillo 1

**Site:** Manzo Ecology Courtyard

**Location:**



**Leaves:**



**Flowers and Flower Buds:**



**Fruits:**



# NATURE'S NOTEBOOK FIELD GUIDE

## GROUP NAME: MANZO ECOLOGY COURTYARD

**Scientific Name:** Fouquieria Splendens

**Nickname:** Ocotillo 2

**Site:** Manzo Ecology Courtyard

**Location:**



**Leaves:**



**Flowers and Flower Buds:**



**Fruits:**





# NATURE'S NOTEBOOK FIELD GUIDE

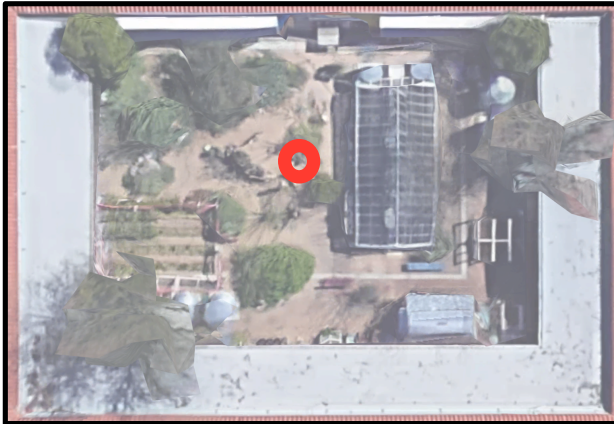
## GROUP NAME: MANZO ECOLOGY COURTYARD

**Scientific Name:** Ferocactus Wislizeni

**Nickname:** Fishhook Barrel Cactus 1

**Site:** Manzo Ecology Courtyard

**Location:**



**Leaves (Spines):**



**Flowers and Flower Buds:**



**Fruits:**



# NATURE'S NOTEBOOK FIELD GUIDE

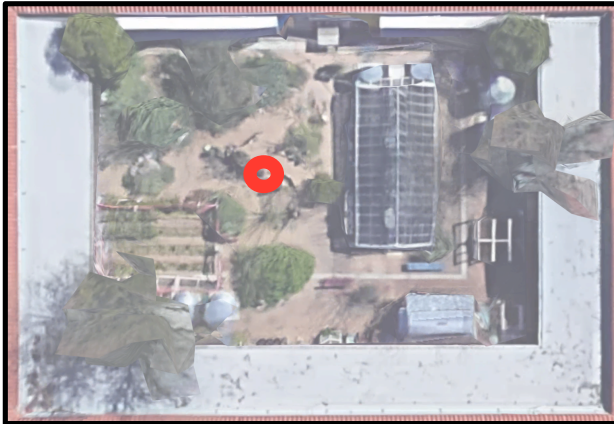
## GROUP NAME: MANZO ECOLOGY COURTYARD

**Scientific Name:** Ferocactus Wislizeni

**Nickname:** Fishhook Barrel Cactus 2

**Site:** Manzo Ecology Courtyard

**Location:**



**Leaves (Spines):**



**Flowers and Flower Buds:**



**Fruits:**





# NATURE'S NOTEBOOK FIELD GUIDE

## GROUP NAME: MANZO ECOLOGY COURTYARD

**Scientific Name:** *Larrea Tridentata*

**Nickname:** Creosote Bush 1

**Site:** Manzo Ecology Courtyard

**Location:**



**Leaves:**



**Flowers and Flower Buds:**



**Fruits:**



# NATURE'S NOTEBOOK FIELD GUIDE

## GROUP NAME: MANZO ECOLOGY COURTYARD

**Scientific Name:** *Larrea Tridentata*

**Nickname:** Creosote Bush 2

**Site:** Manzo Ecology Courtyard

**Location:**



**Leaves:**



**Flowers and Flower Buds:**



**Fruits:**





# NATURE'S NOTEBOOK FIELD GUIDE

## GROUP NAME: MANZO ECOLOGY COURTYARD

**Scientific Name:** Fortunella

**Nickname:** Kumquat

**Site:** Manzo Ecology Courtyard

**Location:**



**Leaves:**



**Flowers or Flower Buds:**



**Fruits:**





Scientific Name: Parkinsonia Praecox

Nickname: Palo Brea Tree

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	Circle the Value		
Young Leaves? (small, just unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Leaves?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Colored Leaves? (brown or yellow)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Falling Leaves?	Y N ?			
Flowers or Flower Buds?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (green or tan bean pod)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (tan bean pod)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or Seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	



Scientific Name: Parkinsonia Praecox

Nickname: Palo Brea Tree

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	Circle the Value		
Young Leaves? (small, just unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Leaves?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Colored Leaves? (brown or yellow)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Falling Leaves?	Y N ?			
Flowers or Flower Buds?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (green or tan bean pod)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (tan bean pod)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or Seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	





Scientific Name: Fouquieria Spendens

Nickname: Ocotillo 1

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	Circle the Value		
Young Leaves? (small, just unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Leaves?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Colored Leaves? (brown or yellow)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Falling Leaves?	Y N ?			
Flowers or Flower Buds? (at top of plant, red)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (round capsule, green or brown)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (brown capsule)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or Seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	



Scientific Name: Fouquieria Spendens

Nickname: Ocotillo 1

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	Circle the Value		
Young Leaves? (small, just unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Leaves?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Colored Leaves? (brown or yellow)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Falling Leaves?	Y N ?			
Flowers or Flower Buds? (at top of plant, red)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (round capsule, green or brown)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (brown capsule)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or Seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	



Scientific Name: Fouquieria Spendens

Nickname: Ocotillo 2

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	Circle the Value		
Young Leaves? (small, just unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Leaves?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Colored Leaves? (brown or yellow)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Falling Leaves?	Y N ?			
Flowers or Flower Buds? (at top of plant, red)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (round capsule, green or brown)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (brown capsule)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or Seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	



Scientific Name: Fouquieria Spendens

Nickname: Ocotillo 2

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	Circle the Value		
Young Leaves? (small, just unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Leaves?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Colored Leaves? (brown or yellow)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Falling Leaves?	Y N ?			
Flowers or Flower Buds? (at top of plant, red)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (round capsule, green or brown)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (brown capsule)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or Seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	





Scientific Name: Fortunella

Nickname: Kumquat Tree

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	What Value?		
Breaking Leaf Buds? (green leaf tip is emerging from branch)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Young Leaves? (leaves are unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Flowers or Flower Buds?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers? (small, white)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (green or orange, small and round)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (fruits have turned deep orange)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	



Scientific Name: Fortunella

Nickname: Kumquat Tree

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	What Value?		
Breaking Leaf Buds? (green leaf tip is emerging from branch)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Young Leaves? (leaves are unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Flowers or Flower Buds?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers? (small, white)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (green or orange, small and round)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (fruits have turned deep orange)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	



Scientific Name: Larrea Tridentata

Nickname: Creosote Bush 1

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_



Scientific Name: Larrea Tridentata

Nickname: Creosote Bush 1

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	What Value?		
Young Leaves? (they look smaller than the rest and are still unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Flowers or Flower Buds?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (small, round with fuzzy white hairs)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (starting to open and turn brown)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	

Do you see ...	Phenophase	What Value?		
Young Leaves? (they look smaller than the rest and are still unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Flowers or Flower Buds?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (small, round with fuzzy white hairs)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (starting to open and turn brown)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	





Scientific Name: Larrea Tridentata

Nickname: Creosote Bush 2

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_



Scientific Name: Larrea Tridentata

Nickname: Creosote Bush 2

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	What Value?		
Young Leaves? (they look smaller than the rest and are still unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Flowers or Flower Buds?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (small, round with fuzzy white hairs)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (starting to open and turn brown)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	

Do you see ...	Phenophase	What Value?		
Young Leaves? (they look smaller than the rest and are still unfolding)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Flowers or Flower Buds?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (small, round with fuzzy white hairs)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (starting to open and turn brown)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or seeds on the ground?	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	



Scientific Name: Ferocactus Wislizeni

Nickname: Barrel Cactus 1

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_



Scientific Name: Ferocactus Wislizeni

Nickname: Barrel Cactus 1

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	What Value?		
		Less than 3	3-10	11-100
Flowers or Flower Buds?	Y N ?	101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (yellow or green, looks like a pineapple)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (fruit is a bright yellow)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or seeds on the ground? (seeds are small, round and black)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	

Do you see ...	Phenophase	What Value?		
		Less than 3	3-10	11-100
Flowers or Flower Buds?	Y N ?	101-10,000	More than 10,000	
Open Flowers?	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits? (yellow or green, looks like a pineapple)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	
Ripe Fruits? (fruit is a bright yellow)	Y N ?	Less than 5%	5-24%	25-49%
		50-74%	75-94%	95% or more
Fruits or seeds on the ground? (seeds are small, round and black)	Y N ?	Less than 3	3-10	11-100
		101-10,000	More than 10,000	





Scientific Name: Ferocactus Wislizeni

Nickname: Barrel Cactus 2

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_



Scientific Name: Ferocactus Wislizeni

Nickname: Barrel Cactus 2

Site: Manzo Ecology Courtyard

Date: \_\_\_\_\_

Observer: \_\_\_\_\_

Do you see ...	Phenophase	What Value?
Flowers or Flower Buds?	Y N ?	Less than 3    3-10    11-100 101-10,000    More than 10,000
Open Flowers?	Y N ?	Less than 5%    5-24%    25-49% 50-74%    75-94%    95% or more
Fruits? (yellow or green, looks like a pineapple)	Y N ?	Less than 3    3-10    11-100 101-10,000    More than 10,000
Ripe Fruits? (fruit is a bright yellow)	Y N ?	Less than 5%    5-24%    25-49% 50-74%    75-94%    95% or more
Fruits or seeds on the ground? (seeds are small, round and black)	Y N ?	Less than 3    3-10    11-100 101-10,000    More than 10,000

Do you see ...	Phenophase	What Value?
Flowers or Flower Buds?	Y N ?	Less than 3    3-10    11-100 101-10,000    More than 10,000
Open Flowers?	Y N ?	Less than 5%    5-24%    25-49% 50-74%    75-94%    95% or more
Fruits? (yellow or green, looks like a pineapple)	Y N ?	Less than 3    3-10    11-100 101-10,000    More than 10,000
Ripe Fruits? (fruit is a bright yellow)	Y N ?	Less than 5%    5-24%    25-49% 50-74%    75-94%    95% or more
Fruits or seeds on the ground? (seeds are small, round and black)	Y N ?	Less than 3    3-10    11-100 101-10,000    More than 10,000