REA Benthic Methods

Review

NOAA FISHERIES

Pacific Islands Fisheries Science Center

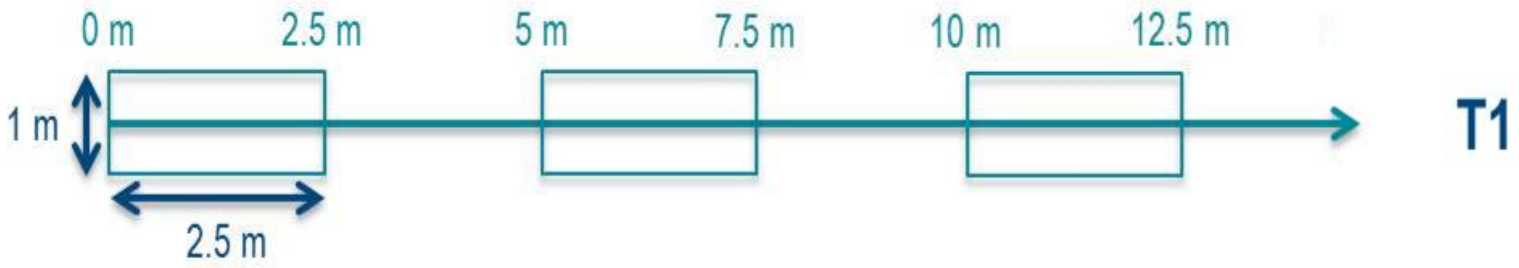
Data Collection Basics: Adult Survey

ADULT CORAL COLONY ≥ 5 cm

Surveys of adult coral colonies are conducted within **four** 1.0 × 2.5 m segments along each transect.

The segments are:

0 – 2.5 m(seg. 0)
5 – 7.5 m(seg. 5)
10 – 12.5 m (seg. 10)
15 – 17.7m (seg. 15) *** omit this segment on deep sites due to bottom time



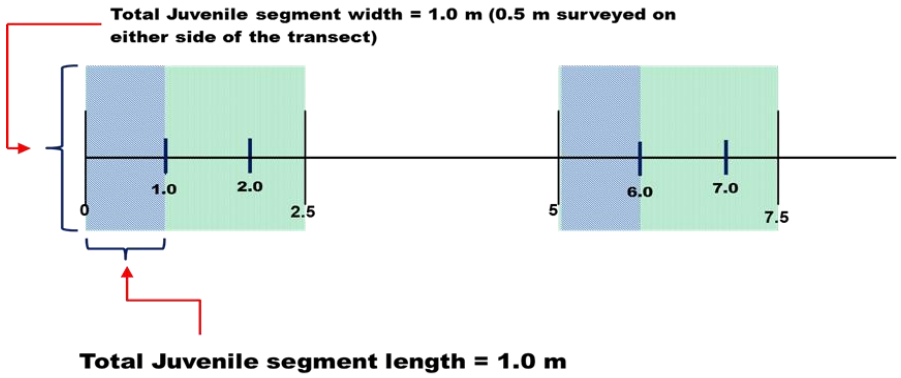
Data Collection Basics: Juvenile Survey

JUVENILE CORAL COLONY < 5 cm

A distinct tissue and skeletal boundary should be visible (not a fragment of larger colony). Survey of juvenile coral colonies are conducted within **three 1.0 × 1.0 m** segments along each transect. **Juveniles recorded to GENUS**

The segments are:

- 0 – 1 m (seg. 0)
- 5 – 6 m (seg. 5)
- 10 – 11 m (seg. 10)

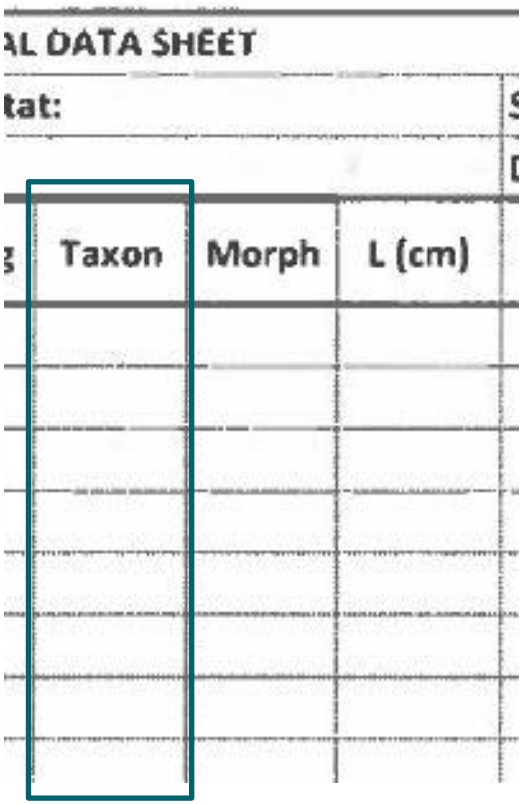


As with adult colonies, the center of the juvenile colony must be within the boundaries of the segment.

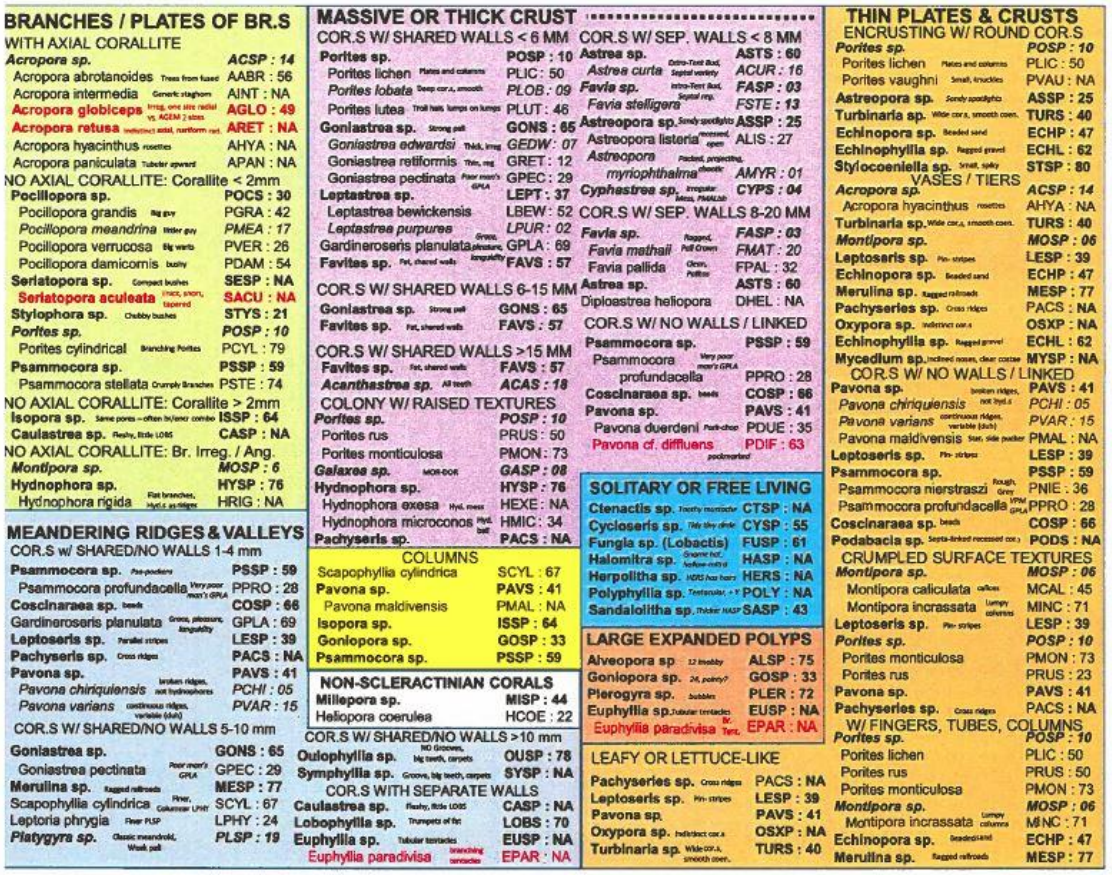
Benthic Data Sheet

BENTHIC CORAL DATA SHEET						Observer:					Date:		
Location/Habitat:						Site Notes:							
Site:						Depth T1 (min/max):				Depth T2 (min/max):			
Col	T	Seg	Taxon	Morph	L (cm)	W (cm)	%Dead	%Recent	RD cause	Condition	Ex	Sv	Comment
1													
2													
3													
4													
5													
6													
7													
8													

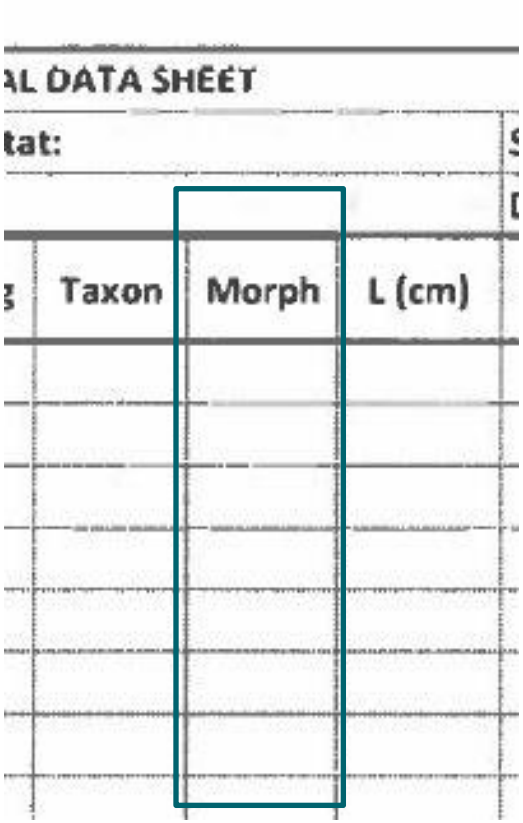
Coral identification



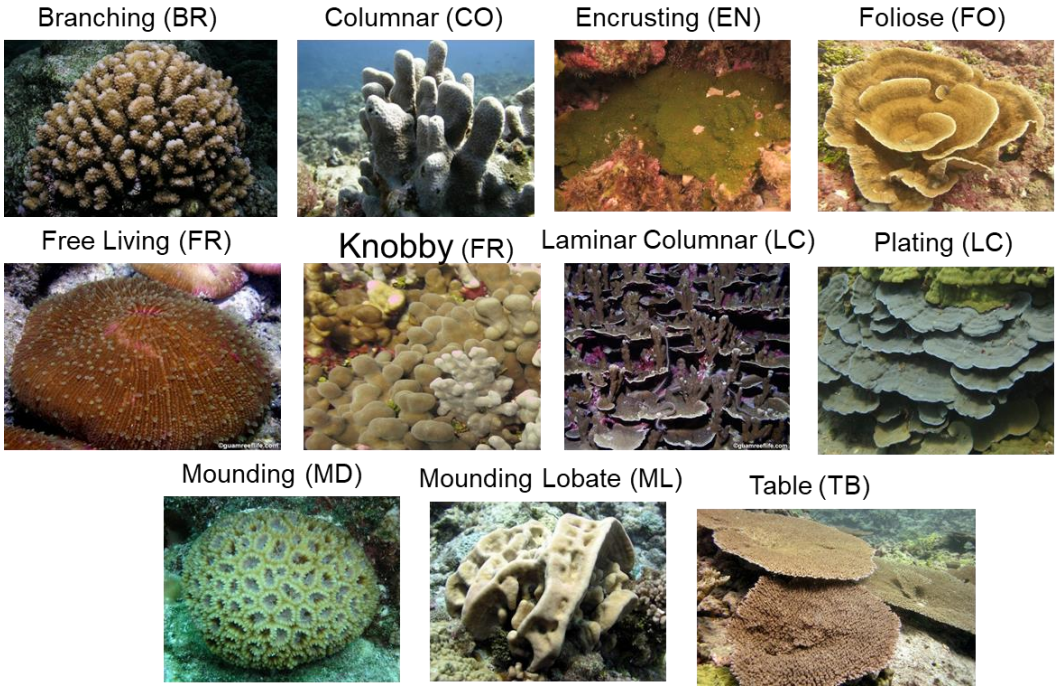
- Record coral ID (genus or species)



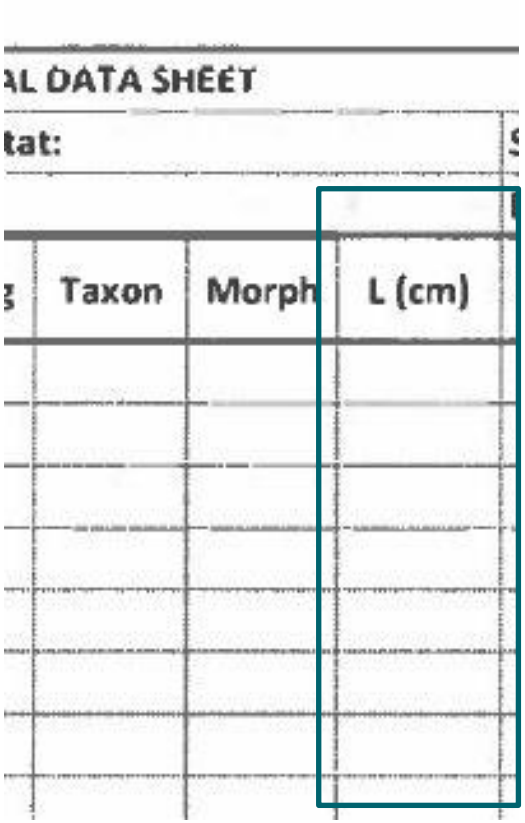
Morphology: Branching (BR)



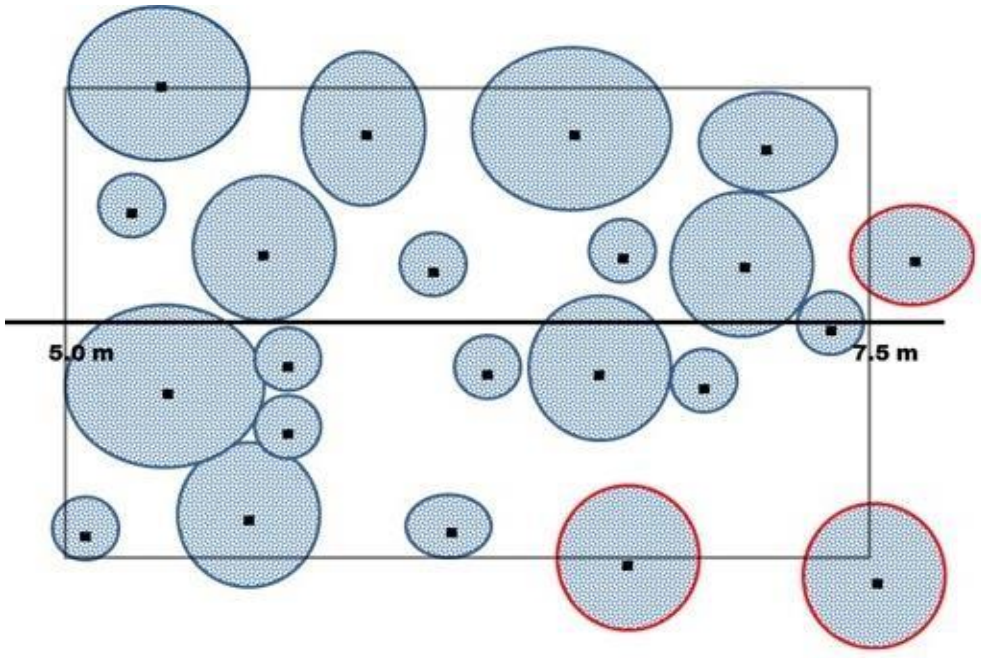
- Record coral morphology



Colony Boundaries



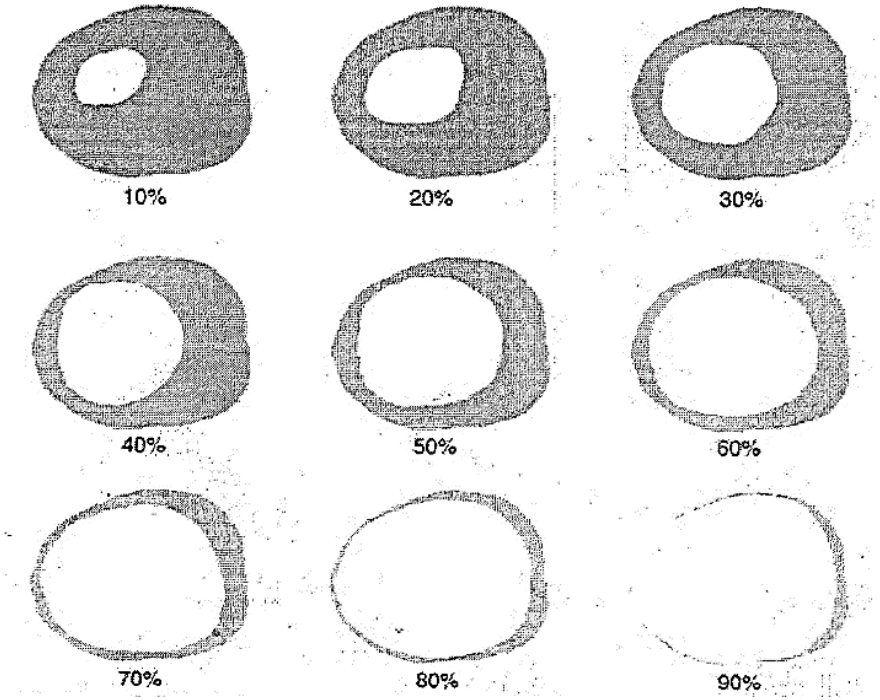
- Identify boundaries of coral colony and measure length of diameter



Percent Mortality

		Observer: HB				
	Site Notes:	Dive # 1 Mod				
	Depth T1	34 / 37			Depth T2 (min/m	
(cm)	W (cm)	%Dead	%Recent	RD cause	Condition	
42		65			PRS	
67		20				
8		10				
13		55				
7						
8		5				
11						
25					BLE	
17						
37		60	10	TLS		
2.2	1.8					
.6	0.8					
.5	1.3					
32						
29		10				
12						
21		75	20	TUNI		

Estimate partial mortality (Old Dead and Recently Dead)



White = % mortality

Identify Reason for Recent Death

Observer: HB

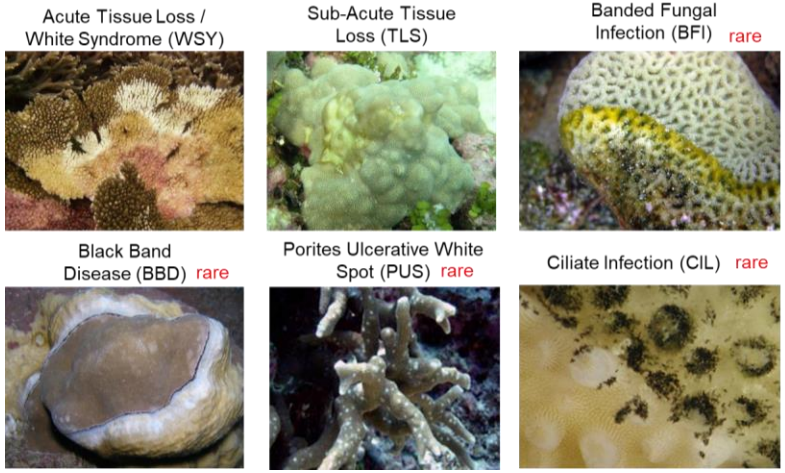
Site Notes: Dive # 1 Mod

Depth T1 (min/max): 34 / 37

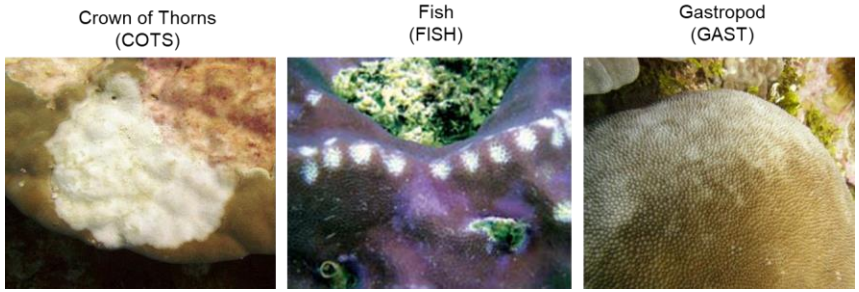
(cm)	W (cm)	%Dead	%Recent	RD cause	Condition
42		65			PRS
67		20			
8		10			
13		55			
7					
8		5			
11					
25					BLE
17					
27		60	10	TLS	
.2	1.8				
.6	0.8				
.5	1.3				
32					
29		10			
12					
21		75	20		

Three causes of recent death (“RD cause”)

(1) Coral diseases – general (DZGN)

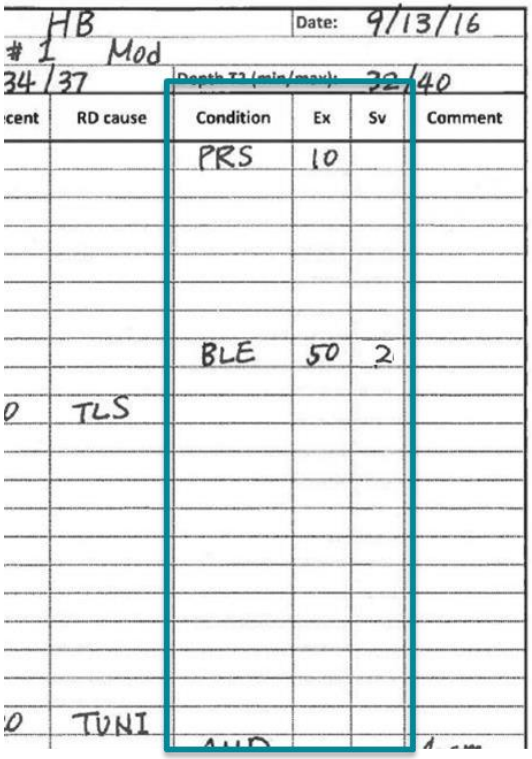


(2) Predation – general (PRED)



(3) Physical Damage (DAMG)

Identify any conditions of living tissue on coral colony



HB Date: 9/13/16
#1 Mod
34/37 Depth TJ (min/max): 32/40

cent	RD cause	Condition	Ex	Sv	Comment
		PRS	10		
		BLE	50	2	
0	TLS				
0	TUNI				

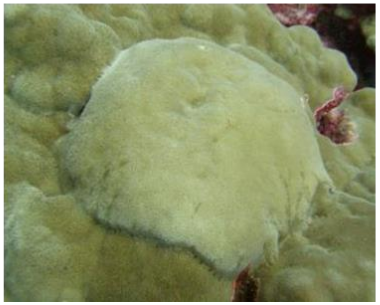
Endolithic Fungal Infection (FUG)

Pigmentation Response (PRS)

Porites Trematodiasis (PTR)

Algal Infection (ALG)

Skeletal Growth Anomalies (SGA)



Bleaching (BLE)