COASTAL GEORGIA ADOPT-A-WETLAND
BIOLOGICAL MONITORING FORM

AAW Group Name _____ County _____

Group ID Number AAW-G-_____ Site ID Number AAW-S-_____

Investigators _____

_____

Wetland Name _____ Date _____ Time _____

Rain in Last 24 Hours? Yes/No Amount of Rain _____ Inches in Last _____ hours/days

☐ Heavy Rain ☐ Steady Rain ☐ Intermittent Rain

Present Conditions: ☐ Heavy Rain ☐ Steady Rain ☐ Intermittent Rain

☐ Partly Cloudy ☐ Overcast ☐ Clear/Sunny

Site Location Description (e.g. Salt Marsh, Tidal Creek, Beach) _____

Sampling Technique: ☐ D-Net ☐ Box Survey

☐ Seine ☐ Hester-Dendy/How long in water?_____

Notes: _____

_____

_____

_____

Submit Form To: Adopt-A-Wetland Program ● University of Georgia Marine Extension Service ● 20 Ocean Science Circle ● Savannah ● GA 31411 ● Fax: (912) 598-2399 ● msweeney@uga.edu

GROUP NAME: **SITE NAME:** **DATE:**

Coastal Adopt-A-Wetland Biological Community Sampling Form **Method of collection (Please Circle One): 1. Hester-Dendy Plates 2. Seine**		
Phylum Mollusca	**Phylum Arthropoda**	**Phylum Ecinodermata**
Class Gastropoda (Snails & Slugs)	*Class Cirrepedia (Barnacles)*	*Class Holothuroidea (Sea Cucumbers)*
Oyster Drill	Barnacle	Sea Cucumber
Mud Snail	*Class Malacostraca (Crabs, Shrimp)*	*Class Asteroidea (Sea Stars)*
Knobbed Whelk	Fiddler Crab (sand, mud, brackish sp.)	Sea Star
Lightning Whelk	Mud Crab	*Class Echinoidea (Sea Urchins, Sand Dollars)*
Channeled Whelk	Blue Crab	Key Hole Urchin (Sand Dollar)
Tulip Snail	Hermit Crab	Sea Urchin
Dove Snail	Stone Crab	*Class Ophiuroidea (Brittle Stars)*
Rock Snail	Porcelain Crab	Brittle Star
Keyhole Limpet	Spider Crab	**Phylum Annelida**
Nudibranch	Calico Crab	*Class Polychaeta (Worms)*
Lettered Olive	Speckeled Crab	Worm
Class Bivalvia (Mussels, Clams, Oysters)	*Class Merostomata (Horseshoe crabs)*	*Class Hirudinea (Leeches)*
Ribbed Mussel	Horseshoe Crab	Leech
Hooked Mussel	*Class Pycnogonita (Sea Spiders)*	
Scorched Mussel	Sea Spider	
Paper Mussel		
Hard Clam	**Phylum Cnidaria**	
Surf Clam	*Class Anthozoa (Anemones)*	
Oyster	Anemone	
Ark	Sea Whip	
Jacknife clam	Sea Pansy	
Coquina	Other	
Marsh clam	*Class Scyphozoa (Jellyfish)*	
Dwarf Surf clam	Jellyfish	
Phylum Porifera	Other	
Class Demospongiae (Sponges)		
Redbeard Sponge	**Phylum Ctenophora**	
Basket Sponge	*Class Tentaculata (Comb Jellies)*	
Finger Sponge	Comb Jellies	**Total Number of All Kinds:**
Boring Sponge	Other	**Total Number of All Individuals:**

GROUP NAME: **SITE NAME:** **DATE:**

Coastal Adopt-A-Wetland Biological Community Sampling Form **Method of collection (Please Circle One): 1. Hester-Dendy Plates 2. Seine**		
Phylum Chordata	Lined Seahorse	Spanish Mackerel
Class Ascidiacea (Tunicates, Sea Squirts)	Lookdown	Spot
Sea Squirt	Mosquitofish	Spotted Hake
Sea Grape	Mummichog	Spotted Seatrout
Sea Pork	Naked Goby	Star Drum
Other	Northern Needlefish	Striped Anchovy
Class Osteichthyes (Bony Fishes)	Northern Pipefish	Striped Blenny
American Eel	Northern Puffer	Striped Burrfish
Atlantic Bumper	Northern Sea Robin	Striped Killifish
Atlantic Croaker	Ocellated Flounder	Striped Mullet
Atlantic Cutlass fish	Oyster Toadfish	Striped Sea Robin
Atlantic Menhaden	Pigfish	Summer Flounder
Atlantic Silverside	Pinfish	Tarpon
Atlantic Spadefish	Planeheaded Filefish	Weakfish
Atlantic Thread Herring	Red Drum	White Mullet
Bay Anchovy	Rock Sea Bass	Whiting
Big Head Sea Robin	Sailfin Molly	Windowpane
Black Drum	Sand Perch	Other
Black Sea Bass	Sea Catfish	
Blackcheek Tonguefish	Sharksucker	**Class Elasmobranchiomorphi**
Bluefish	Sheepshead	Atlantic Sharp Nose Shark
Butterfish	Sheepshead Killifish	Atlantic Stingray
Crevalle Jack	Silver Jenny (Mojarra)	Bonnet Head Shark
Feather Blenny	Silver Perch	Clearnose Skate
Florida Pompano	Silver Seatrout	Lemon Shark
Gafftopsail Catfish	Skillet Fish	Sandbar Shark
Goby	Smooth Puffer	Smooth butterfly Ray
Gray Snapper	Southern Flounder	Southern Stingray
Hogchoker	Southern Harvestfish	Other
Inshore Lizardfish	Southern Sennet	**Total Number of All Kinds:**
Ladyfish	Southern Stargazer	**Total Number of All Individuals:**

Box Survey Data

Date:
AAW Group Name:
Length of Transect (ft or m):
Identify the types and numbers of animals and plants in each survey station
(for help in identification please see Macroinvertebrate and Plant Identification keys in the Appendix of this manual).

Station 1	#	Station 2	#	Station 3	#	Station 4	#	Station 5	#
Atlantic Ribbed Mussel		Atlantic Ribbed Mussel		Atlantic Ribbed Mussel		Atlantic Ribbed Mussel		Atlantic Ribbed Mussel	
Eastern Oyster		Eastern Oyster		Eastern Oyster		Eastern Oyster		Eastern Oyster	
Periwinkle Snail		Periwinkle Snail		Periwinkle Snail		Periwinkle Snail		Periwinkle Snail	
Mud Snail		Mud Snail		Mud Snail		Mud Snail		Mud Snail	
Coffeebean Snail		Coffeebean Snail		Coffeebean Snail		Coffeebean Snail		Coffeebean Snail	
Amphipod		Amphipod		Amphipod		Amphipod		Amphipod	
Fiddler Crabs		Fiddler Crabs		Fiddler Crabs		Fiddler Crabs		Fiddler Crabs	
Crab Holes (> ¼ inch)		Crab Holes (> ¼ inch)		Crab Holes (> ¼ inch)		Crab Holes (> ¼ inch)		Crab Holes (> ¼ inch)	
Cordgrass (*Spartina)*		Cordgrass (*Spartina*)		Cordgrass (*Spartina*)		Cordgrass (*Spartina*)		Cordgrass (*Spartina*)	
Needlerush (*Juncus*)		Needlerush (*Juncus*)		Needlerush (*Juncus*)		Needlerush (*Juncus*)		Needlerush (*Juncus*)	
Seaweed		Seaweed		Seaweed		Seaweed		Seaweed	

☺Helpful hint: If there are too many grasses in the box you can estimate the number of grasses.

Cordgrass (*Spartina*) Height Data Sheet for Box Survey

Date: AAW Group Name:

Measure height of 15 *Spartina* plants in each survey station and choose color (green, yellow, brown) for each stem measured then calculate the average.

Spartina Sample #	Station #1		Station #2		Station #3		Station #4		Station #5	
	Ht	Color	Ht	Color	Ht	Color	Ht	Color	Ht	Color
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
Sum										
Average Height (Sum÷15)										

Optional

Please estimate the number of blades of *Spartina* in your stations and circle the appropriate color option.

Station 1		Station 2		Station 3		Station 4		Station 5	
< 10	Green	< 10	Green	< 10	Green	< 10	Green	< 10	Green
20-50	Yellow	20-50	Yellow	20-50	Yellow	20-50	Yellow	20-50	Yellow
> 50	Brown	> 50	Brown	> 50	Brown	> 50	Brown	> 50	Brown

Dune Measurement:

AAW Group Name:

Date: _____ Dune length (m): _____

Comments/ Observations:

Does your dune appear to be moving? If so, in which direction (North, South, East, West)?

Is the dune eroding or accreting?

Other signs of impact (footprints, trash, etc.)

Any change in vegetation?

Additional notes:

Shannon-Wiener Biological Diversity Index (H') Worksheet

$H' = -\sum_{i=1} Pi \ln Pi$ OR = - sum of [(P_i)(Natural Log)(P_i)] for each species present

Where Pi is the relative abundance of each species = ni/N
ni = number of individuals in species i
N = total number of individuals in all species
S = number of species

1. Circle type of monitoring: Box Survey, Colonizing plates, D-Net, and Seine
2. Habitat type (i.e. oyster reef, salt marsh):
3. Calculate the diversity index for your sample by completing the worksheet below. (An example of how to complete the worksheet is provided on the following page).

A	B	C	D	E	F
Species **(i)**	# Individuals of Each Species **(ni)**	Total Number of Individuals in all Species **(N)** **= sum Column A**	Relative Abundance Of Each Species **(Pi)** **= Column B/C**	Natural log of Relative Abundances **(ln Pi)** **= ln Column D**	Relative Abundances Times Their Natural log **(Pi ln Pi)** **= Column (D)(E)**

Sum of Column F = _____
Multiply by -1 to make positive = **Shannon-Wiener Index Diversity Index** = _____

Diversity Scale

1	2	3	4	5
Not Diverse	→	Moderately Diverse	→	Diverse

Shannon-Wiener Biological Diversity Index (H') Worksheet

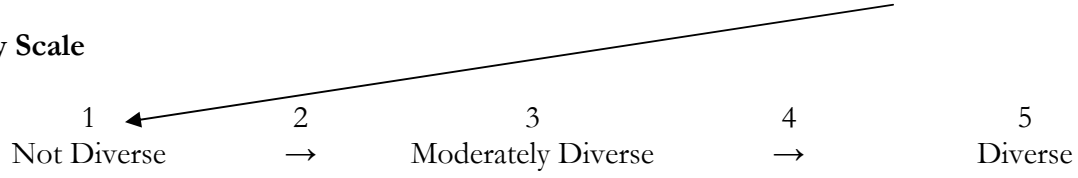
$H' = -\sum_{i=1}^{s} Pi \ln Pi$ OR = - sum of [(P_i)(Natural Log)(P_i)] for each species present

Where Pi is the relative abundance of each species = ni/N
ni = number of individuals in species i
N = total number of individuals in all species
S = number of species

A	B	C	D	E	F
Species **(i)**	# Individuals of all Species **(ni)**	Total Number of Individuals of all Species **(N)** **= sum Column A**	Relative Abundance Of Each Species **(Pi)** **= Column B/C**	Natural log of Relative Abundances **(ln Pi)** **= ln Column D**	Relative Abundances Times Their Natural log **(Pi ln Pi)** **= Column (D)(E)**
Mud Crab	2	39	0.05	-2.99	-0.15
Worn	3	39	0.08	-2.53	-0.20
Periwinkle	10	39	0.25	-1.39	-0.35
Blue Crab	23	39	0.59	-0.53	-0.31
Whelk	1	39	0.02	-3.91	-0.08

Sum of or Column F = -1.09
Multiply by -1 to make positive = **Shannon-Wiener Index Diversity Index** = 1.09

Diversity Scale



Community Not Diverse