

Guam and the Northern Mariana Islands: ESIMAP 1

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Migrating	Molting
1	Red-footed booby		X X X X X X X X X X X X	JAN-DEC	-	-
4	Brown noddy		X X X X X X X X X X X X	-	-	-
	White tern		X X X X X X X X X X X X	JAN-DEC	-	-
11	Black noddy		X X X X X X X X X X X X	JAN-DEC	-	-
	Brown noddy		X X X X X X X X X X X X	JAN-DEC	-	-
	Pacific reef-heron		X X X X X X X X X X X X	JAN-DEC	-	-
	Terns		X X X X X X X X X X X X	JAN-DEC	-	-
	Yellow bittern		X X X X X X X X X X X X	JAN-DEC	-	-
14	White tern		X X X X X X X X X X X X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
2	Barracudas		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Emperors		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Goatfishes		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Groupers		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Mullet		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Parrotfishes		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Puffers		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Snappers		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Surgeonfishes		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Wrasses		X X X X X X X X X X X X	-	-	-	JAN-DEC	-
3	Scalloped hammerhead		X X X	JAN-MAR	-	-	JAN-MAR	JAN-MAR
4	Bigeye scad	HIGH		X X X X X X X X	-	-	-	JUN-DEC
	Small-toothed whiptail		X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
13	Bigeye scad	HIGH		X X X X X X X X	-	-	-	JUN-DEC

HABITAT:

RAR#	Species	S F Conc.	J F M A M J J A S O N D
10	Nipa palm		X X X X X X X X X X X X

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
2	Octopus		X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Swimming crabs		X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
12	Bivalves	HIGH	X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Mangrove crab		X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
17	Sponges	HIGH	X X X X X X X X X X X X	-	-	-	-	-

MARINE MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
9	Spinner dolphin	80	X X X X X X X X X X X X	-	-	-	-
15	Spinner dolphin	40	X X X X X X X X X X X X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Interesting	Juveniles	Adults
5	Green sea turtle	E T	X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Hawksbill sea turtle	E E	X X X X X X X X X X X X	-	-	-	JAN-DEC	-
6	Green sea turtle	E T HIGH	X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Hawksbill sea turtle	E E HIGH	X X X X X X X X X X X X	-	-	-	JAN-DEC	-
7	Hawksbill sea turtle	E E	X X X	JAN-MAR	-	-	JAN-MAR	JAN-MAR
8	Green sea turtle	E T		X X X X	APR-JUL	-	APR-JUL	APR-JUL

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
20	GABGAB BEACH		
23	POLARIS POINT		
32	RIZAL BEACH PARK		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
62	OROTE PT. ENVIRONMENTAL RESTRICTED AREA	GUAM DAWR	671/735-3955
65	SASA BAY MARINE PROTECTED AREA	GUAM DAWR	671/735-3955

NATIONAL PARK:

HUN#	Name	Contact	Phone
75	WAR IN THE PACIFIC NHP	NPS	671/472-7240

SEWAGE OUTFALL:

HUN#	Name	Contact	Phone
76	OUTFALL		

Guam and the Northern Mariana Islands: ESIMAP 2

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
11	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Yellow bittern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
65	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Yellow bittern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
67	Nipa palm		X	X	X	X	X	X	X	X	X	X	X	X

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
9	Spinner dolphin	80	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
15	Spinner dolphin	40	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
66	Green sea turtle	E T						X	X	X	X				APR-JUL	-	-	APR-JUL	APR-JUL
	Hawksbill sea turtle	E E	X	X	X										JAN-MAR	-	-	JAN-MAR	JAN-MAR

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
22	NIMITZ BEACH PARK		

NATIONAL PARK:

HUN#	Name	Contact	Phone
75	WAR IN THE PACIFIC NHP	NPS	671/472-7240

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BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
21	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Yellow bittern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
110	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Micronesia starling	C	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Shorebirds		X	X	X	X		X	X	X	X	X	X	X	-	-	-
	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
25	Bigeye scad	HIGH						X	X	X	X	X	X	X	-	-	-	-	JUN-DEC
112	Barracudas		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mackerels		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mojarras		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Needlefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Porcupinefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Requiem sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
114	Napolean wrasse	C	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
117	Bigeye scad	HIGH						X	X	X	X	X	X	X	-	-	-	-	JUN-DEC

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
67	Nipa palm		X	X	X	X	X	X	X	X	X	X	X	X

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
112	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Swimming crabs		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
116	Mangrove crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
118	Mangrove crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
9	Spinner dolphin	80	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
113	Spotted dolphin	60	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interneeting	Juveniles	Adults
111	Green sea turtle	E T				X	X	X	X						APR-JUL	-	-	APR-JUL	APR-JUL
114	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Hawksbill sea turtle	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
115	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
19	COCOS ISLAND TERRITORIAL PARK		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
53	ACHANG REEF FLAT MARINE PROTECTED AREA	GUAM DAWR	671/735-3955

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BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
21	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Yellow bittern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
112	Barracudas		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mackerels		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mojarras		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mulletts		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Needlefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Porcupinefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Requiem sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
117	Bigeye scad	HIGH						X	X	X	X	X	X	X	-	-	-	-	JUN-DEC

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
119	Nipa palm		X	X	X	X	X	X	X	X	X	X	X	X
121	Nipa palm		X	X	X	X	X	X	X	X	X	X	X	X

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
112	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Swimming crabs		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
120	Green sea turtle	E T					X	X	X	X					APR-JUL	-	-	APR-JUL	APR-JUL
123	Green sea turtle	E T					X	X	X	X					APR-JUL	-	-	APR-JUL	APR-JUL

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Contact	Phone
3	AQUACULTURE SITE		
6	SHRIMP & TILAPIA AQUACULTURE SITE		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
53	ACHANG REEF FLAT MARINE PROTECTED AREA	GUAM DAWR	671/735-3955

SEWAGE OUTFALL:

HUN#	Name	Contact	Phone
76	OUTFALL		

Guam and the Northern Mariana Islands: ESIMAP 5

BIOLOGICAL RESOURCES:

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
125	Bumphead parrotfish	C	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
126	Bigeye scad							X	X	X	X	X	X	X	-	-	-	-	JUN-DEC

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
127	Nipa palm		X	X	X	X	X	X	X	X	X	X	X	X

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
8	Green sea turtle	E T					X	X	X	X					APR-JUL	-	-	APR-JUL	APR-JUL
111	Green sea turtle	E T					X	X	X	X					APR-JUL	-	-	APR-JUL	APR-JUL

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Contact	Phone
5	FISH & SHRIMP AQUACULTURE SITE		

SEWAGE OUTFALL:

HUN#	Name	Contact	Phone
76	OUTFALL		

Guam and the Northern Mariana Islands: ESIMAP 6

BIOLOGICAL RESOURCES:

FISH:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
25	Bigeye scad	HIGH	X X X X X X X X	-	-	-	-	JUN-DEC
125	Bumphead parrotfish	C	X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC

HABITAT:

RAR#	Species	S F Conc.	J F M A M J J A S O N D
121	Nipa palm		X X X X X X X X X X X X

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
116	Mangrove crab		X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
128	Intertidal invertebrates	HIGH	X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Internesting	Juveniles	Adults
111	Green sea turtle	E T	X X X X	APR-JUL	-	-	APR-JUL	APR-JUL

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
26	RECREATIONAL BEACH		

WATER INTAKE:

HUN#	Name	Contact	Phone
89	WATER INTAKE		

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Guam and the Northern Mariana Islands: ESIMAP 7

BIOLOGICAL RESOURCES:

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
125	Bumphead parrotfish	C	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
128	Intertidal invertebrates	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Contact	Phone
4	AQUACULTURE SITE	UNIVERSITY OF GUAM	

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Guam and the Northern Mariana Islands: ESIMAP 8

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
131	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
129	Barracudas		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mackerels		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mojarras		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Needlefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Porcupinefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Requiem sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
128	Intertidal invertebrates	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
129	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Swimming crabs		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
130	Slipper lobsters	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
9	Spinner dolphin	80	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

HUMAN USE RESOURCES:

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
63	PATI POINT MARINE PROTECTED AREA	GUAM DAWR	671/735-3955

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.



Guam and the Northern Mariana Islands: ESIMAP 9

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
132	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown booby		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
129	Barracudas		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mackerels		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mojarras		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Needlefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Porcupinefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Requiem sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
128	Intertidal invertebrates	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
129	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Swimming crabs		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
130	Slipper lobsters	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
9	Spinner dolphin	80	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
133	Spinner dolphin	100	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interne	sting	Juveniles	Adults
66	Green sea turtle	E T						X	X	X					APR-JUL	-	-		APR-JUL	APR-JUL
	Hawksbill sea turtle	E E	X	X	X										JAN-MAR	-	-		JAN-MAR	JAN-MAR
111	Green sea turtle	E T						X	X	X					APR-JUL	-	-		APR-JUL	APR-JUL

HUMAN USE RESOURCES:

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
63	PATI POINT MARINE PROTECTED AREA	GUAM DAWR	671/735-3955

Guam and the Northern Mariana Islands: ESIMAP 10

BIOLOGICAL RESOURCES:

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
129	Barracudas		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mackerels		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mojarras		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Needlefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Porcupinefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Requiem sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
129	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Swimming crabs		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
18	Bottlenose dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
133	Spinner dolphin	100	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
20	Green sea turtle	E T				X	X	X	X						APR-JUL	-	-	APR-JUL	APR-JUL
66	Green sea turtle	E T				X	X	X	X						APR-JUL	-	-	APR-JUL	APR-JUL
	Hawksbill sea turtle	E E	X	X	X										JAN-MAR	-	-	JAN-MAR	JAN-MAR

HUMAN USE RESOURCES:

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
57	HAPUTO ECOLOGICAL RESERVE AREA	U.S. NAVY	
63	PATI POINT MARINE PROTECTED AREA	GUAM DAWR	671/735-3955

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
90	GUAM NATIONAL WILDLIFE REFUGE	USFWS	672/355-5096

Guam and the Northern Mariana Islands: ESIMAP 11

BIOLOGICAL RESOURCES:

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
18	Bottlenose dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
133	Spinner dolphin	100	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

HUMAN USE RESOURCES:

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
57	HAPUTO ECOLOGICAL RESERVE AREA	U.S. NAVY	

Guam and the Northern Mariana Islands: ESIMAP 12

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
21	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Yellow bittern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
28	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
22	Rabbitfishes	HIGH					X	X							-	-	-	APR-MAY	-
23	Giant manta	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
24	Barracudas		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mackerels		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mojarras		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Needlefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Porcupinefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Requiem sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
25	Bigeye scad	HIGH							X	X	X	X	X	X	-	-	-	-	JUN-DEC
27	Rabbitfishes	HIGH					X	X							-	-	-	APR-MAY	-

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
24	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Swimming crabs		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
18	Bottlenose dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
133	Spinner dolphin	100	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
22	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Hawksbill sea turtle	E E	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
21	MATAPANG BEACH PARK		
26	RECREATIONAL BEACH		
27	RECREATIONAL BEACH		
33	TANGUISSON BEACH PARK		
34	YPAO BEACH PARK		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
67	TUMON BAY MARINE PROTECTED AREA	GUAM DAWR	671/735-3955

SEWAGE OUTFALL:

HUN#	Name	Contact	Phone
76	OUTFALL		

WATER INTAKE:

HUN#	Name	Contact	Phone
88	WATER INTAKE		

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BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
4	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
11	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Yellow bittern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
34	Mariana common moorhen	E E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
2	Barracudas		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Puffers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
4	Bigeye scad	HIGH						X	X	X	X	X	X	X	-	-	-	-	JUN-DEC
	Small-toothed whiptail		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
30	Barracudas		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Giant manta		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mackerels		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mojarras		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Needlefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Porcupinefishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Requiem sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sharks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
31	Bumphead parrotfish	C	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
2	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Swimming crabs		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
12	Bivalves	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mangrove crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
30	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Swimming crabs		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
9	Spinner dolphin	80	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
6	Green sea turtle	E T HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Hawksbill sea turtle	E E HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
25	RECREATIONAL BEACH		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
64	PITI BAY MARINE PROTECTED AREA	GUAM DAWR	671/735-3955
65	SASA BAY MARINE PROTECTED AREA	GUAM DAWR	671/735-3955

NATIONAL PARK:

HUN#	Name	Contact	Phone
75	WAR IN THE PACIFIC NHP	NPS	671/472-7240

SEWAGE OUTFALL:

HUN#	Name	Contact	Phone
77	OUTFALL		

WATER INTAKE:

HUN#	Name	Contact	Phone
87	WATER INTAKE		

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BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
37	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown booby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
38	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
43	Black-bellied plover		X	X	X								X	X	X	-	-
	Common sandpiper		X	X	X								X	X	X	-	-
	Gray-tailed tattler		X	X	X								X	X	X	-	-
	Mongolian plover		X	X	X								X	X	X	-	-
	Pacific golden-plover		X	X	X								X	X	X	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Ruddy turnstone		X	X	X								X	X	X	-	-
	Wandering tattler		X	X	X								X	X	X	-	-
	Whimbrel		X	X	X								X	X	X	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
40	Bigeyes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Butterflyfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Fusiliers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Milkfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Soldierfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-FEB
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sweetlips		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Unicornfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
40	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topshell		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Turbo shell		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
42	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
39	Bottlenose dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Spinner dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
41	Bottlenose dolphin		X	X	X	X	X								-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
35	Green sea turtle	E T					X	X	X	X					APR-JUL	-	-	APR-JUL	APR-JUL
36	Green sea turtle	E T					X	X	X	X					APR-JUL	-	-	APR-JUL	APR-JUL

HUMAN USE RESOURCES:

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
66	SASANHAYA FISH RESERVE	CNMI DFW	670/644-6000
68	WEDDING CAKE	CNMI DFW	670/644-6000

MARINA:

HUN#	Name	Contact	Phone
72	MARINA		

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BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
43	Black-bellied plover		X	X	X							X	X	X	-	-	-
	Common sandpiper		X	X	X							X	X	X	-	-	-
	Gray-tailed tattler		X	X	X							X	X	X	-	-	-
	Mongolian plover		X	X	X							X	X	X	-	-	-
	Pacific golden-plover		X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Ruddy turnstone		X	X	X							X	X	X	-	-	-
	Wandering tattler		X	X	X							X	X	X	-	-	-
	Whimbrel		X	X	X							X	X	X	-	-	-
44	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
45	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown booby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
40	Bigeyes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Butterflyfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Fusiliers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Milkfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Soldierfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-FEB
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sweetlips		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Unicornfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
40	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Topshell		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Turbo shell		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
36	Green sea turtle	E T				X	X	X	X						APR-JUL	-	-	APR-JUL	APR-JUL
46	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

Guam and the Northern Mariana Islands: ESIMAP 16

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
48	Great frigatebird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
49	Brown booby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
50	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown booby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Great frigatebird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Red-footed booby		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Red-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
52	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Red-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
53	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Shorebirds		X	X	X							X	X	X	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
36	Green sea turtle	E T					X	X	X	X					APR-JUL	-	-	APR-JUL	APR-JUL
46	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
51	Green sea turtle	E T HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
91	SAGUAGAGA SEABIRD SANCTUARY	CNMI DFW	670/664-6000

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.



Guam and the Northern Mariana Islands: ESIMAP 17

BIOLOGICAL RESOURCES:

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
36	Green sea turtle	E T					X	X	X	X					APR-JUL	-	-	APR-JUL	APR-JUL
46	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Guam and the Northern Mariana Islands: ESIMAP 18

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
-----		-----			-----												-----	-----	-----
54	Black noddy				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown booby				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Red-footed booby				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Red-tailed tropicbird				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White-tailed tropicbird				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
57	Brown booby				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Red-footed booby				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White tern				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
58	Pacific reef-heron				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
59	Red-tailed tropicbird				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White-tailed tropicbird				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
60	Boobies				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

MARINE MAMMAL:

RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
-----		-----			-----												-----	-----	-----	-----
56	Spinner dolphin				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
=====																				

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Guam and the Northern Mariana Islands: ESIMAP 19

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting	
62	Black-bellied plover				X	X	X								X	X	X	-	-	-
	Common sandpiper				X	X	X								X	X	X	-	-	-
	Gray-tailed tattler				X	X	X								X	X	X	-	-	-
	Mongolian plover				X	X	X								X	X	X	-	-	-
	Pacific golden-plover				X	X	X								X	X	X	-	-	-
	Wandering tattler				X	X	X								X	X	X	-	-	-
64	Pacific reef-heron				X	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
69	Brown booby				X	X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	-	-
	Red-footed booby				X	X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	-	-
	Red-tailed tropicbird				X	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Shorebirds				X	X	X	X				X	X	X	X	X	-	-	-	-
	White tern				X	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White-tailed tropicbird				X	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
74	Spinner dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
61	Green sea turtle	E T						X	X	X	X				APR-JUL	-	-	APR-JUL	APR-JUL
63	Green sea turtle	E T HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
31	RECREATIONAL BEACH		

Guam and the Northern Mariana Islands: ESIMAP 20

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
69	Brown booby		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	-	-
	Red-footed booby		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	-	-
	Red-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Shorebirds		X	X	X	X	X			X	X	X	X	X	-	-	-
	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
68	Spinner dolphin	30	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
68	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
=====																			

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Guam and the Northern Mariana Islands: ESIMAP 21

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
70	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Boobies		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
71	White-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
72	Common sandpiper		X	X	X							X	X	X	-	-	-
	Gray-tailed tattler		X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Ruddy turnstone		X	X	X							X	X	X	-	-	-
	Wandering tattler		X	X	X							X	X	X	-	-	-
	Whimbrel		X	X	X							X	X	X	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
35	Green sea turtle	E T						X	X	X	X				APR-JUL	-	-	APR-JUL	APR-JUL
73	Green sea turtle	E T						X	X	X	X				APR-JUL	-	-	APR-JUL	APR-JUL

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
31	RECREATIONAL BEACH		

Guam and the Northern Mariana Islands: ESIMAP 22

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
72	Common sandpiper		X	X	X							X	X	X	-	-	-
	Gray-tailed tattler		X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Ruddy turnstone		X	X	X							X	X	X	-	-	-
	Wandering tattler		X	X	X							X	X	X	-	-	-
	Whimbrel		X	X	X							X	X	X	-	-	-
75	Red-footed booby		X	X	X	X	X	X	X	X	X	X	X	X	DEC-FEB	-	-

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
74	Spinner dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
35	Green sea turtle	E T				X	X	X	X						APR-JUL	-	-	APR-JUL	APR-JUL
76	Green sea turtle	E T				X	X	X	X						APR-JUL	-	-	APR-JUL	APR-JUL

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
31	RECREATIONAL BEACH		

Guam and the Northern Mariana Islands: ESIMAP 23

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
72	Common sandpiper		X	X	X							X	X	X	-	-	-
	Gray-tailed tattler		X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Ruddy turnstone		X	X	X							X	X	X	-	-	-
	Wandering tattler		X	X	X							X	X	X	-	-	-
	Whimbrel		X	X	X							X	X	X	-	-	-
77	Black-crowned night-heron		X	X	X							X	X	X	-	-	-
	Cattle egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Great egret		X	X	X							X	X	X	-	-	-
	Greater scaup		X	X	X							X	X	X	-	-	-
	Intermediate egret		X	X	X							X	X	X	-	-	-
	Little egret		X	X	X							X	X	X	-	-	-
	Mariana common moorhen	E E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Northern pintail		X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Yellow bittern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
78	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Boobies		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Frigatebirds		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Terns		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
74	Spinner dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
35	Green sea turtle	E T				X	X	X	X						APR-JUL	-	-	APR-JUL	APR-JUL

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
31	RECREATIONAL BEACH		

Guam and the Northern Mariana Islands: ESIMAP 24

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
80	Black-bellied plover		X	X	X							X	X	X	-	-	-
	Gray-tailed tattler		X	X	X							X	X	X	-	-	-
	Mongolian plover		X	X	X							X	X	X	-	-	-
	Pacific golden-plover		X	X	X							X	X	X	-	-	-
	Wandering tattler		X	X	X							X	X	X	-	-	-
81	Cattle egret		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Common teal		X	X	X							X	X	X	-	-	-
	Common tern		X	X	X							X	X	X	-	-	-
	Great egret		X	X	X							X	X	X	-	-	-
	Intermediate egret		X	X	X							X	X	X	-	-	-
	Little egret		X	X	X							X	X	X	-	-	-
	Mariana common moorhen	E E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Northern pintail		X	X	X							X	X	X	-	-	-
	Northern shoveler		X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Tufted duck		X	X	X							X	X	X	-	-	-
	Whiskered tern		X	X	X							X	X	X	-	-	-
	White-winged black tern		X	X	X							X	X	X	-	-	-
	Yellow bittern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
82	Mariana common moorhen	E E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
83	Pacific golden-plover	HIGH	X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
84	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
79	Bigeyes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Butterflyfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Fusiliers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Milkfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mulletts		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Skipjack tuna	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Soldierfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-FEB
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sweetlips		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Unicornfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
79	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Reef invertebrates	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
79	Spinner dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
35	Green sea turtle	E T					X	X	X	X					APR-JUL	-	-	APR-JUL	APR-JUL

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
29	RECREATIONAL BEACH		
31	RECREATIONAL BEACH		



Guam and the Northern Mariana Islands: ESIMAP 25

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
87	Brown noddy	300-400	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
89	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
90	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Red-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
91	Black-bellied plover		X	X	X									X	X	X	-
	Common sandpiper		X	X	X									X	X	X	-
	Gray-tailed tattler		X	X	X									X	X	X	-
	Mongolian plover		X	X	X									X	X	X	-
	Pacific golden-plover		X	X	X									X	X	X	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Wandering tattler		X	X	X									X	X	X	-
	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
92	Red-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	White-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
93	Mariana common moorhen	E E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Pacific golden-plover		X	X	X									X	X	X	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
88	Bigeyes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Butterflyfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Fusiliers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Grunts		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Milkfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Soldierfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-FEB
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Unicornfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
86	Gastropods	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
88	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
35	Green sea turtle	E T						X	X	X	X				APR-JUL	-	-	APR-JUL	APR-JUL
85	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
30	RECREATIONAL BEACH		
31	RECREATIONAL BEACH		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
56	FORBIDDEN ISLAND MARINE SANCTUARY	CNMI DFW	670/664-6000
58	KAGMAN WILDLIFE CONSERVATION AREA	CNMI DFW	670/664-6000
59	LAU LAU BAY SEA CUCUMBER RESERVE	CNMI DFW	670/664-6000

Guam and the Northern Mariana Islands: ESIMAP 26

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
91	Black-bellied plover		X	X	X							X	X	X	-	-	-
	Common sandpiper		X	X	X							X	X	X	-	-	-
	Gray-tailed tattler		X	X	X							X	X	X	-	-	-
	Mongolian plover		X	X	X							X	X	X	-	-	-
	Pacific golden-plover		X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Wandering tattler		X	X	X							X	X	X	-	-	-
	White tern		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
94	Black-bellied plover		X	X	X							X	X	X	-	-	-
	Common sandpiper		X	X	X							X	X	X	-	-	-
	Curlews		X	X	X							X	X	X	-	-	-
	Gray-tailed tattler		X	X	X							X	X	X	-	-	-
	Greater yellowlegs		X	X	X							X	X	X	-	-	-
	Lesser yellowlegs		X	X	X							X	X	X	-	-	-
	Mongolian plover		X	X	X							X	X	X	-	-	-
	Pacific golden-plover		X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Ruddy turnstone		X	X	X							X	X	X	-	-	-
	Shorebirds	40	X	X	X	X					X	X	X	X	-	-	-
	Stints		X	X	X							X	X	X	-	-	-
	Wandering tattler		X	X	X							X	X	X	-	-	-
	Whimbrel		X	X	X							X	X	X	-	-	-
96	Mariana common moorhen	E E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
97	Greater scaup		X	X	X							X	X	X	-	-	-
	Mariana common moorhen	E E	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Northern pintail		X	X	X							X	X	X	-	-	-
	Tufted duck		X	X	X							X	X	X	-	-	-
98	White tern	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
79	Bigeyes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Butterflyfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Fusiliers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Milkfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Skipjack tuna	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Soldierfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-FEB
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sweetlips		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Unicornfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
88	Bigeyes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Butterflyfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Fusiliers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Grunts		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Milkfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Soldierfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-FEB
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Unicornfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
79	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Reef invertebrates	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
88	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
79	Spinner dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
35	Green sea turtle	E T				X	X	X	X						APR-JUL	-	-	APR-JUL	APR-JUL
85	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
30	RECREATIONAL BEACH		
31	RECREATIONAL BEACH		

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Guam and the Northern Mariana Islands: ESIMAP 26 (cont.)

HUMAN USE RESOURCES: (cont.)

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
54	BIRD ISLAND MARINE SANCTUARY	CNMI DFW	670/664-6000
55	BIRD ISLAND WILDLIFE CONSERVATION AREA	CNMI DFW	670/664-6000
56	FORBIDDEN ISLAND MARINE SANCTUARY	CNMI DFW	670/664-6000
58	KAGMAN WILDLIFE CONSERVATION AREA	CNMI DFW	670/664-6000

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Guam and the Northern Mariana Islands: ESIMAP 27

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
94	Black-bellied plover		X	X	X							X	X	X	-	-	-
	Common sandpiper		X	X	X							X	X	X	-	-	-
	Curlews		X	X	X							X	X	X	-	-	-
	Gray-tailed tattler		X	X	X							X	X	X	-	-	-
	Greater yellowlegs		X	X	X							X	X	X	-	-	-
	Lesser yellowlegs		X	X	X							X	X	X	-	-	-
	Mongolian plover		X	X	X							X	X	X	-	-	-
	Pacific golden-plover		X	X	X							X	X	X	-	-	-
	Pacific reef-heron		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Ruddy turnstone		X	X	X							X	X	X	-	-	-
	Shorebirds	40	X	X	X	X					X	X	X	X	-	-	-
	Stints		X	X	X							X	X	X	-	-	-
	Wandering tattler		X	X	X							X	X	X	-	-	-
	Whimbrel		X	X	X							X	X	X	-	-	-
98	White tern	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
99	Black noddy		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Brown noddy	500-600	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-
101	Red-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	White-tailed tropicbird		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
79	Bigeyes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Butterflyfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Fusiliers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Milkfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Skipjack tuna	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Soldierfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-FEB
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sweetlips		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Unicornfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
88	Bigeyes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Butterflyfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Fusiliers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Grunts		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Milkfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Mullet		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Snappers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Soldierfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	APR-FEB
	Squirrelfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Unicornfishes		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
79	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Reef invertebrates	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
88	Giant clams		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
79	Spinner dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
95	Spinner dolphin		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
100	Spinner dolphin	COMMON	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
35	Green sea turtle	E T				X	X	X	X						APR-JUL	-	-	APR-JUL	APR-JUL
85	Green sea turtle	E T	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
31	RECREATIONAL BEACH		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
54	BIRD ISLAND MARINE SANCTUARY	CNMI DFW	670/664-6000
55	BIRD ISLAND WILDLIFE CONSERVATION AREA	CNMI DFW	670/664-6000

NATIONAL PARK:

HUN#	Name	Contact	Phone
74	MARPI POINT NATIONAL HISTORIC LANDMARK	NPS	

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

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BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Migrating	Molting
94	Black-bellied plover		X X X	X X X	-	-
	Common sandpiper		X X X	X X X	-	-
	Curlews		X X X	X X X	-	-
	Gray-tailed tattler		X X X	X X X	-	-
	Greater yellowlegs		X X X	X X X	-	-
	Lesser yellowlegs		X X X	X X X	-	-
	Mongolian plover		X X X	X X X	-	-
	Pacific golden-plover		X X X	X X X	-	-
	Pacific reef-heron		X X X X X X X X X X X X X X	JAN-DEC	-	-
	Ruddy turnstone		X X X	X X X	-	-
	Shorebirds	40	X X X X	X X X X	-	-
	Stints		X X X	X X X	-	-
	Wandering tattler		X X X	X X X	-	-
	Whimbrel		X X X	X X X	-	-
96	Mariana common moorhen	E E	X X X X X X X X X X X X X X	JAN-DEC	-	-
103	Wedge-tailed shearwater	200	X X X X X X X X X X X X X X	APR-DEC	-	-
104	Little tern		X X X X X X X X X X X X X X	JAN-DEC	-	-
107	Mariana common moorhen	E E	X X X X X X X X X X X X X X	JAN-DEC	-	-
	Nightingale reed-warbler	E E	X X X X X X X X X X X X X X	-	-	-
108	Mariana common moorhen	E E	X X X X X X X X X X X X X X	JAN-DEC	-	-
	Northern pintail		X X X	X X X	-	-
	Pacific reef-heron		X X X X X X X X X X X X X X	JAN-DEC	-	-
	Yellow bittern		X X X X X X X X X X X X X X	JAN-DEC	-	-
109	Shorebirds		X X X	X X X	-	-

FISH:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
79	Bigeyes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Butterflyfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Damselfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Emperors		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Fusiliers		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Goatfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Groupers		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Jacks		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Milkfish		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Mulletts		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Parrotfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Rabbitfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Rudderfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Skipjack tuna	HIGH	X X X X X X X X X X X X X X	-	-	-	JAN-DEC	-
	Snappers		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Soldierfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	APR-FEB
	Squirrelfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Surgeonfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Sweetlips		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Triggerfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Unicornfishes		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Wrasses		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
102	Giant manta		X X X X X X X X X X X X X X	-	-	-	-	JAN-DEC

INVERTEBRATE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Spawning	Eggs	Larvae	Juveniles	Adults
79	Giant clams		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Octopus		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Reef invertebrates	HIGH	X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Sea cucumbers		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Slipper lobsters		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
	Spiny lobsters		X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC
105	Topshell	HIGH	X X X X X X X X X X X X X X	-	-	-	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Mating	Calving	Pupping	Molting
79	Spinner dolphin		X X X X X X X X X X X X X X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J F M A M J J A S O N D	Nesting	Hatching	Interesting	Juveniles	Adults
35	Green sea turtle	E T	X X X X	APR-JUL	-	-	APR-JUL	APR-JUL
106	Green sea turtle	E T	X X X X X X X X X X X X X X	-	-	-	JAN-DEC	-

HUMAN USE RESOURCES:

BEACH:

HUN#	Name	Contact	Phone
24	RECREATIONAL BEACH		
29	RECREATIONAL BEACH		
31	RECREATIONAL BEACH		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
60	LIGHTHOUSE REEF TROCHUS RESERVE	CNMI DFW	
61	MANAGAHA MARINE CONSERVATION AREA	CNMI DFW	

SEWAGE OUTFALL:

HUN#	Name	Contact	Phone
78	OUTFALL		