APPENDICES

Appendix 1A. Available marine bird colony data along coast of north/central California: number of breeding birds by species.

Appendix 1B. Available marine bird colony data along coast of north/central California: related colony information.

Appendix 2. Body weights of 686 species of North American birds, from Dunning, 1993.

Appendix 3A. Leach's Storm-Petrel: pelagic maps of seasonal density, high use areas and breeding colonies.

Appendix 3B. Fork-tailed Storm-Petrel: pelagic maps of seasonal density and high use areas.

Appendix 3C. Ashy Storm-Petrel: pelagic maps of seasonal density, high use areas and breeding colonies.

Appendix 3D. Black Storm-Petrel: pelagic maps of seasonal density and high use areas.

Appendix 3E. Sooty Shearwater: pelagic maps of seasonal density and high use areas.

Appendix 3F. Buller's Shearwater: pelagic maps of seasonal density and high use areas.

Appendix 3G. Northern Fulmar: pelagic maps of seasonal density and high use areas.

Appendix 3H. Black-footed Albatross: pelagic maps of seasonal density and high use areas.

Appendix 3J. Laysan Albatross: pelagic maps of seasonal density and high use areas.

Appendix 3K. Red Phalarope: pelagic maps of seasonal density and high use areas.

Appendix 1A. Available marine bird colony data along coast of north/central California: number of breeding birds by species.

Colony Name	California Colony Code	Leach's Storm-Petrel	Ashy Storm-Petrel	Brandt's Cormo-rant	Double-crested Cormo-rant	Pelagic Cormo-rant	Black Oyster-catcher	Cali-fornia Gull [9]	Western Gull	Caspian Tern [9]	Forsters Tern [9]	Least Tern	Common Murre	Pigeon Guille-mot	Cassin's Auklet	Rhino-ceros Auklet	Tufted Puffin	No. of Breeding Species	Colony Size (No. of Breeding Birds)
Point Arena	ME-384-01					154	7		4					52				4	217
Sea Lion Rocks	ME-384-02					106	4		9					12				4	131
Sea Lion Rocks to Arena Cove	ME-384-03					183	4		16									3	203
Moat Cove	ME-384-04					H								10				1	10
Section 30 Cove	ME-384-05					42								8				2	50
Saunders Landing	ME-384-06					20								8				2	28
Iverson Point	ME-384-07					42	H							5				2	47
Triplett Gulch	ME-384-08					119	H		4					55				3	178
Fish Rock Cove	ME-384-09			H		33	1											2	34
Fish Rocks	ME-384-10	100[l]		368[c]		123	6		170					119	P	4	15	9	905
Collins Landing to Gualala River	ME-384-11					187	4		H					90				3	281
Gualala Point Island	SO-384-01			264[c]		4	1		26					29				5	324
Del Mar Point	SO-384-02					9												1	9
Sea Ranch	SO-384-03					84	11		16					42				4	153
Black Point to Stewart's Point	SO-384-04					40	4		6					12				4	62
Stewart's Point to Rocky Point	SO-382-01					66	1		4					15				4	86
Horseshoe Cove	SO-382-02					121			2					2				3	125
Cannon Gulch to Stump Beach	SO-382-03					79	14							2				3	95
Gerstle Cove to Stillwater Cove	SO-382-04					110	6		16					10				4	142
Bench Mark 125 to Timber Cove	SO-382-05					62	2		32					10				4	106
Windermere Point to Jewell Gulch	SO-382-06					40	1		6					2				4	49
Northwest Cape Rocks	SO-382-07					H	1		52									2	53
Russian Gulch	SO-382-08				80[c]	227	7		42					20				5	376
Russian River Rocks	SO-382-09			P[l]	238[c]	125	2		44					5				6	414
Goat Rock to Peaked Hill	SO-382-10						1		6									2	7
Arched Rock	SO-382-11			436[c]		9			34					2			H	4	481
Peaked Hill	SO-382-12					44	1		6					2				4	53
Gull Rock	SO-382-13	10		H	68[c]	44	2		34					2				6	160
Shell-Wright Beach Rocks	SO-382-14				32[c]	55	20		88					5				5	200
Duncan Point to Arched Rock	SO-382-15					136	4		34					H				3	174
Bodega Head	SO-380-01					103	6		10					2				4	121
Bodega Rock	SO-380-02			722[c]			H		24					30		2		4	778
Bodega Harbor	SO-380-03								12					2				2	14
Pinnacle Rock	SO-380-04					51	2		2					27		2		5	84
Sonoma-Marin County Line	MA-380-01			H		84	5		14					25				4	128
Dillon Beach Rocks	MA-380-02			P[l]	32[c]	143	3		32					20				6	230
Tomales Point	MA-380-03					141	3		6					H				3	150
Bird Rock (Marin Co.)	MA-380-04		15[g]	550[c]		37	6		168					115		3	H	7	894
Elephant Rock Complex	MA-380-05					H			8					28				2	36

Appendix 1A cont. Available marine bird colony data along coast of north/central California: number of breeding birds by species.

Colony Name	California Colony Code	Leach's Storm-Petrel	Ashy Storm-Petrel	Brandt's Cormo-rant	Double-crested Cormo-rant	Pelagic Cormo-rant	Black Oyster-catcher	Cali-fornia Gull [9]	Western Gull	Caspian Tern [9]	Forsters Tern [9]	Least Tern	Common Murre	Pigeon Guille-mot	Cassin's Auklet	Rhino-ceros Auklet	Tufted Puffin	No. of Breeding Species	Colony Size (No. of Breeding Birds)
Point Reyes	MA-374-01		15[g]	1,160[a]		266	6		178				40,810[a]	616		6	4	9	43,061
Coast Campground South	MA-374-02													63				1	63
Point Resistance	MA-374-03			28[a]	H	H	H		8				7,091[a]	50				4	7,177
Millers Point Rocks	MA-374-04			296[a]		59	1		30				1,510[a]	55				6	1,951
Double Point Rocks	MA-374-05		50[g]	328[a]		9	H		8				15,818[a]	22				6	16,235
Stinson Beach to Rocky Point	MA-374-06								6									1	6
Gull Rock Area	MA-374-07					9	1		6					7				4	23
Muir Beach Headlands to Tennessee Cove	MA-374-08					42	1		20					34				4	97
Bird Island (Marin Co.)	MA-374-09			H			1		56					5				3	62
Point Bonita	MA-374-10					95			10					66				3	171
Bonita Cove	MA-374-11					2			6					2				3	10
Point Diablo Bluffs and Needles	MA-374-12					15			34					H				2	49
Yellow Bluff	SFB-MA-01								2									1	2
Sausalito Point Area	SFB-MA-02								4									1	4
Peninsula Point and Cone Rock	SFB-MA-03								6									1	6
Angel Island	SFB-MA-04								6									1	6
Bluff Point to Paradise Cay	SFB-MA-05								4									1	4
Point San Quentin	SFB-MA-06								6									1	6
Marin Islands	SFB-MA-07						2		64									2	66
The Sisters and Point San Pedro	SFB-MA-08								96									1	96
Rat Rock	SFB-MA-09								2									1	2
Southwest San Pablo Bay Duck Blinds	SFB-MA-10								16									1	16
Marin County-West San Pablo Bay Ship Channel	SFB-MA-11								14									1	14
Sonoma Co.-West San Pablo Bay Ship Channel	SFB-SO-01								2									1	2
Little Island	SFB-NA-01									H								0	0
Russ Island	SFB-NA-02				4[c]													1	4
Island No. 2	SFB-NA-03										50							1	50
Knight Island	SFB-SN-01				400[c]				8	76	270							4	754
White Slough	SFB-SN-02										40							1	40
North San Pablo Bay Radar Target	SFB-SN-03				30[c]													1	30
Northeast San Pablo Bay Beacon	SFB-SN-04				8[c]				2									2	10
Mare Island Strait	SFB-SN-05								20									1	20
Commodore Jones Point to Benicia Point	SFB-SN-06								10									1	10
Benicia Point to Army Point	SFB-SN-07								6									1	6
Mothball Fleet	SFB-SN-08								10									1	10
Wheeler Island	SFB-SN-09				252[c]													1	252
Donlon Island	SFB-SA-01				H[c]													0	0
Pittsburgh Pacific Gas & Electric Plant	SFB-CC-01											8						1	8
Port Chicago Allied Chemical Co.	SFB-CC-02											H						0	0

Appendix 1A cont. Available marine bird colony data along coast of north/central California: number of breeding birds by species.

Colony Name	California Colony Code	Leach's Storm-Petrel	Ashy Storm-Petrel	Brandt's Cormo-rant	Double-crested Cormo-rant	Pelagic Cormo-rant	Black Oyster-catcher	Cali-fornia Gull [9]	Western Gull	Caspian Tern [9]	Forsters Tern [9]	Least Tern	Common Murre	Pigeon Guille-mot	Cassin's Auklet	Rhino-ceros Auklet	Tufted Puffin	No. of Breeding Species	Colony Size (No. of Breeding Birds)
Suisun Point Area	SFB-CC-03								6									1	6
Nevada Dock	SFB-CC-04								2									1	2
Eckley to Selby	SFB-CC-05								4									1	4
Davis Point Unocal Wharf	SFB-CC-06								22									1	22
Hercules Wharf	SFB-CC-07								2									1	2
Pinole Point	SFB-CC-08								2									1	2
East San Pablo Bay Ship Channel	SFB-CC-09								6									1	6
The Brothers	SFB-CC-10						1		178									2	179
Castro Point Area	SFB-CC-11								8									1	8
Richmond-San Rafael Bridge	SFB-CC-12				1,264[c]				18									2	1,282
Castro Rocks	SFB-CC-13								H									0	0
Red Rock	SFB-CC-14								384									1	384
Standard Oil Long Wharf	SFB-CC-15								6									1	6
Richmond Harbor Entrance Channel	SFB-CC-16								12									1	12
Brooks Island Area	SFB-CC-17						2		98	120								3	220
Richmond Inner Harbor	SFB-CC-18								12									1	12
Albany Hill Cove	SFB-AL-01								2									1	2
Berkeley Yacht Harbor Breakwaters	SFB-AL-02								38									1	38
Berkeley Pier	SFB-AL-03								40									1	40
Bay Bridge "Toll Plaza Point"	SFB-AL-04								2			H						1	2
San Fran-Oakland Bay Bridge E.	SFB-AL-05				1,490[c]				40									2	1,530
Oakland Outer Harbor	SFB-AL-06								8									1	8
Oakland Middle Harbor	SFB-AL-07								10									1	10
Oakland Inner Harbor	SFB-AL-08								6									1	6
Government Island Area	SFB-AL-09								2									1	2
Alameda Naval Air Station	SFB-AL-10								502	1,188		150						3	1,840
Ballena Bay	SFB-AL-11											H						0	0
Bay Farm Island	SFB-AL-12											H						0	0
Oakland International Airport	SFB-AL-13											18						1	18
Mulford Landing Channel	SFB-AL-14								2									1	2
Hayward Marsh, Basin 3A	SFB-AL-15											2						1	2
Baumberg Plant #1, Pond 10	SFB-AL-16									H[k]	814							1	814
Baumberg Plant #1, Ponds 10 &11	SFB-AL-17											H						0	0
Baumberg Plant #1, Pond 8A	SFB-AL-18										313							1	313
Baumberg Plant #1, Pond 6B	SFB-AL-19										85							1	85
Baumberg Plant #1, Ponds 1, 2, 7	SFB-AL-20											H						0	0
Baumberg Plant #2, Ponds 2, 4, 7	SFB-AL-21									H	H							0	0
Baumberg Plant #1, Ponds 4, 5, 7	SFB-AL-22										94	H[k]						1	94
Plant #1, Pond 1A-NW	SFB-AL-23											H						0	0

Appendix 1A cont. Available marine bird colony data along coast of north/central California: number of breeding birds by species.

Colony Name	California Colony Code	Leach's Storm-Petrel	Ashy Storm-Petrel	Brandt's Cormo-rant	Double-crested Cormo-rant	Pelagic Cormo-rant	Black Oyster-catcher	Cali-fornia Gull [9]	Western Gull	Caspian Tern [9]	Forsters Tern [9]	Least Tern	Common Murre	Pigeon Guille-mot	Cassin's Auklet	Rhino-ceros Auklet	Tufted Puffin	No. of Breeding Species	Colony Size (No. of Breeding Birds)
Plant #1, Pond 1A	SFB-AL-24										H							0	0
Plant #1, Pond 2A	SFB-AL-25										125							1	125
Plant #1, Pond 3A	SFB-AL-26										H							0	0
Plant #1, Ponds 4, 5, 6, 7	SFB-AL-27											H						0	0
KGO Radio Towers	SFB-AL-28									H	H							0	0
Plant #1, Pond 3	SFB-AL-29										99							1	99
Plant #1, Pond 1	SFB-AL-30										204							1	204
Plant #2, Ponds 11, 26	SFB-AL-31							H			H							0	0
Plant #2, Ponds 4, 5	SFB-AL-32									634	H[k]							1	634
Alviso Plant, Pond A17	SFB-SR-01										25							1	25
Alviso Plant, Pond A18	SFB-SR-02										H							0	0
Alviso Plant, Pond A16	SFB-SR-03										43							1	43
Alviso Plant, Ponds A9, A10	SFB-SR-04				78[c]			434										2	512
Alviso Plant, Pond A8	SFB-SR-05										158							1	158
Alviso Plant, Pond A7	SFB-SR-06										95							1	95
Alviso Plant, Pond A6	SFB-SR-07							4,328	4		194							3	4,526
Alviso Plant, Pond A5	SFB-SR-08										H							0	0
Alviso Plant, Pond B2	SFB-SR-09										480							1	480
Alviso Plant, Pond A1	SFB-SR-10							2			38							2	40
Charleston Slough	SFB-SR-11										250							1	250
Redwood City Plant, Pond 1	SFB-SM-01										100							1	100
Redwood City Plant, Pond 3	SFB-SM-02										H	H[k]						0	0
Bair Island, Pond A10	SFB-SM-03										H							0	0
Bair Island, Pond A9	SFB-SM-04										H							0	0
Bair Island, Pond B3	SFB-SM-05										H							0	0
Bair Island, Pond B1	SFB-SM-06									800	63	H[k]						2	863
San Mateo Bridge and PG&E Towers	SFB-SM-07				210[c]				6									2	216
San Francisco Ship Channel	SFB-SM-08								8									1	8
Oyster Point Area	SFB-SM-09								2		10							2	12
Double Rock	SFB-SF-01								2									1	2
Hunter's Point	SFB-SF-02								50									1	50
Lash Lighter Basin	SFB-SF-03								40									1	40
Potrero Point	SFB-SF-04								6									1	6
San Francisco Piers South	SFB-SF-05								232									1	232
San Fran.-Oakland Bay Bridge West	SFB-SF-06								48									1	48
Yerba Buena Island	SFB-SF-07			H[c]		4	1		62									3	67
Treasure Island	SFB-SF-08								96									1	96
San Francisco Piers North	SFB-SF-09								62									1	62
Pier 45	SFB-SF-10								66									1	66

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Colony Name	California Colony Code	Leach's Storm-Petrel	Ashy Storm-Petrel	Brandt's Cormo-rant	Double-crested Cormo-rant	Pelagic Cormo-rant	Black Oyster-catcher	Cali-fornia Gull [9]	Western Gull	Caspian Tern [9]	Forsters Tern [9]	Least Tern	Common Murre	Pigeon Guille-mot	Cassin's Auklet	Rhino-ceros Auklet	Tufted Puffin	No. of Breeding Species	Colony Size (No. of Breeding Birds)
Alcatraz Island	SFB-SF-11			1,578[a]					900					5				3	2,483
Fort Point Rock to Helmut Rock	SF-374-01								6									1	6
Lobos Rock and Land's End	SF-374-02			238[a]					14					18				3	270
Seal Rocks	SF-374-03			184[a]	H		3		46					H				3	233
Eel Rock Cliffs	SF-372-05					9								H				1	9
North Farallon Islands	SF-FAI-01			102[a]		62			32				71,929[a]	42	36[b]			6	72,203
South Farallon Islands	SF-FAI-02	1,400[j]	1,990[f]	17,014[a]	1,122[a]	442[e]	30		15,095[e]				127,399[a]	499[e]	18,807[e]	516	128[e]	12	184,442
Mussel Rock Area	SM-374-01						1							10				2	11
Mori Point	SM-372-01					31								18				2	49
San Pedro Rock	SM-372-02			H		H[d]	2		12[d]				H	128[d]			H	3	142
Devil's Slide Rock and Mainland	SM-372-03			692[a]		114[d]	H		8[d]				380[d]	160[d]				5	1,354
Pillar Point	SM-372-04				H	5								2				2	7
Seal Rock Cliffs	SM-372-06			37		123	H		2					12				4	174
Martin's Beach	SM-372-07			H		108	1							20				3	129
Pomponio Beach to Pescadero Beach	SM-370-01						2							20				2	22
Pigeon Point	SM-370-02						H		2					8				2	10
Gazos Creek North	SM-370-03								4					8				2	12
Año Nuevo Island	SM-370-04			3,278[a]		13	27		1,382					117	24[h]	224[h]		7	5,065
Punta del Año Nuevo	SM-370-05					114								102				2	216
Greyhound Rock to El Jarro Point	SC-370-01					66	9		2					321				4	398
El Jarro Point to Davenport	SC-370-02			72[c]		22								313		1		4	408
Davenport to Sand Hill Bluff	SC-364-01					13	1							495				3	509
Sand Hill Bluff to Needle Rock Point	SC-364-02					2	3							245				3	250
Needle Rock Point to Terrace Point	SC-364-03					31	6		6					232				4	275
Terrace Point to Point Santa Cruz	SC-364-04			108[c]			1		2					205				4	316
Palm Beach	SC-364-05											H						0	0
Salinas River Old Mouth	MO-364-01											H						0	0
Elkhorn Slough Salt Ponds	MO-364-02								10	H	H							1	10
Elkhorn Slough Estuarine Reserve	MO-364-03								16	20								2	36
Moss Landing Harbor	MO-364-04								16									1	16
Moro Cojo Slough	MO-364-05											H						0	0
Salinas River New Mouth	MO-364-06									568[n]	H	H						2	568
Monterey Harbor	MO-362-01			494[c]					24					35				3	553
Cannery Row	MO-362-02			310[c]		198			86					88				4	682
Bird Rock (Monterey Co.)	MO-362-03			1,658[c]			2		16									3	1,676
North Carmel Bay	MO-362-04					9			6									2	15
Pescadero Rocks	MO-362-05						2		20					22			H[k]	3	44
Guillemot Island Area	MO-362-06			554		20	10		30					18			H[k]	5	632
Pinnacle Point Area	MO-362-07			P[i]		33	3		10					H				4	46

Appendix 1A cont. Available marine bird colony data along coast of north/central California: number of breeding birds by species.

Colony Name	California Colony Code	Leach's Storm-Petrel	Ashy Storm-Petrel	Brandt's Cormo-rant	Double-crested Cormo-rant	Pelagic Cormo-rant	Black Oyster-catcher	Cali-fornia Gull [9]	Western Gull	Caspian Tern [9]	Forsters Tern [9]	Least Tern	Common Murre	Pigeon Guille-mot	Cassin's Auklet	Rhino-ceros Auklet	Tufted Puffin	No. of Breeding Species	Colony Size (No. of Breeding Birds)
Sand Hill Cove	MO-362-08					18	1		4					H				3	23
Bird Island (Monterey Co.)	MO-362-09			2,690[c]		4	2		90					5				5	2,791
Carmel Highlands	MO-362-10					2	1											2	3
Yankee Point	MO-362-11			1,744[c]					H					H				1	1,744
Yankee Point South	MO-362-12					7	5		18					2				4	32
Soberanes Creek Rocks	MO-362-13					46	1		6					15				5	68
Lobos Rocks	MO-362-14						4		4					8				3	16
Soberanes Point South	MO-362-15			66[c]		7	H		1					7				4	81
Kasler Point North	MO-362-16						1		2					3				3	6
Rocky Point	MO-362-17			54[c]		H	H		6					17				3	77
Bench Mark-227x	MO-362-18		P[o]	444[a]		35	H		38				539[a]	36				6	1,092
Castle Rocks and Mainland	MO-362-19		P[o]	342[a]		46	P[j]		12				2,901[a]	19	2[ob]			8	3,322
Hurricane Point Rocks	MO-362-20		P[o]	68[a]		P[j]	H		14				1,343[a]	20			H	6	1,445
Point Sur	MO-360-01					33	H		H[k]					3				3	36
Molera Rock	MO-360-02					H			8					5				2	13
Cooper Point and Islands	MO-360-03			P[j]		18			1					18				4	37
Pfeiffer Point	MO-360-04			38[c]		9								5				3	52
Wreck Beach South	MO-360-05					11			2					8				3	21
Grimes Point	MO-360-06			30[c]		H	H		4									2	34
Lafler Rock and Mainland	MO-360-07			48[c]		4								H				2	52
Torre Canyon Rocks	MO-360-08			H		15	1											2	16
Partington Point	MO-360-09								14					5				2	19
Partington Ridge North	MO-360-10			276[c]	5	2	1		7					18				6	309
McWay Rocks	MO-360-11			P[j]			H		14					15				3	29
Partington Ridge South	MO-360-12			P[j]		H			8					165				3	173
Anderson Canyon Rocks	MO-360-13			P[j]	5	26			2					32				5	65
Burns Creek Rocks	MO-360-14			P[j]			1		2					12				4	15
Buck Creek	MO-360-15								2									1	2
Dolan Rock	MO-360-16			H														0	0
Bench Mark 223	MO-360-17					11												1	11
Square Black Rock	MO-360-18			H														0	0
Gamboa Point	MO-360-19			56[c]			1		4									3	61
Bench Mark 247	MO-360-20					H												0	0
Lopez Rock	MO-360-21			P[j]														1	0
Lopez Point South	MO-360-22								2									1	2
Rockland Landing North	MO-360-23			114[c]	18[c]	33			7									4	172
Rockland Landing	MO-360-24					2			6					17				3	25
Kirk Creek to Mill Creek	MO-354-01								2									1	2
36 North	MO-354-02					H												0	0

Appendix 1A cont. Available marine bird colony data along coast of north/central California: number of breeding birds by species.

Colony Name	California Colony Code	Leach's Storm-Petrel	Ashy Storm-Petrel	Brandt's Cormo-rant	Double-crested Cormo-rant	Pelagic Cormo-rant	Black Oyster-catcher	Cali-fornia Gull [9]	Western Gull	Caspian Tern [9]	Forsters Tern [9]	Least Tern	Common Murre	Pigeon Guille-mot	Cassin's Auklet	Rhino-ceros Auklet	Tufted Puffin	No. of Breeding Species	Colony Size (No. of Breeding Birds)
Larus Rock	MO-354-03					H	H		2					2				2	4
Unnamed Point	MO-354-04					H	H		8[k]									1	8
Gorda Area	MO-354-05						1		8					5				3	14
Small Rocks & Mainland N.E. of Plaskett Rk.	MO-354-06					2	6		26					40				4	74
Plaskett Rock	MO-354-07			26[c]		H	1		5					H				3	32
Cape San Martin	MO-354-08			296[c]	H[c]	18	H		349					H				3	663
Unnamed Rock	MO-354-09			H[c]	H[c]	H	H		4									1	4
Mainland Point across from Bird Rock	MO-354-10					26	H							5				2	31
Point North of Redwood Gulch	MO-354-11					2			2									2	4
Redwood Gulch Rock	MO-354-12			P[j]					2					H				2	2
Seastack South of Redwood Gulch	MO-354-13			134[c]		9	H		6									3	149
Unmapped Island	MO-354-14			22[c]		H			3					5				3	30
Salmon Creek	MO-354-15					H												0	0
Arched Peninsula South of Salmon Creek	MO-354-16					24								28				2	52
Ragged Point Lodge Colony	SL-354-01			136[c]		H	H		H					8				2	144
Ragged Point South	SL-354-02								2									1	2
3 Rocks	SL-354-03			130[c]		48	2		12									4	192
La Cruz Rock	SL-354-04			P[j]			H		18									2	18
Piedras Blancas Island	SL-352-01			1,224[c]			1		34					29		3	H	5	1,291
Point Piedras Blancas	SL-352-02						2		2									2	4
Two Rocks South of Point Piedras Blancas	SL-352-03					7	1		14					5				4	27
Point San Simeon	SL-352-04						1		10					42				3	53
South San Simeon	SL-352-05													22				1	22
Island South of Cayucos Point	SL-352-06						6											1	6
Morro Rock and Pillar Rock	SL-352-07			876[c]	82[c]	53	H		114					24				5	1,149
Fairbank Point	SL-352-08				812[c]													1	812
Morro Bay Spit	SL-352-09											H						0	0
Spooner's Cove	SL-350-01								H					56				1	56
Point Buchon	SL-350-02			172[c]		48	6		40					102				5	368
Unnamed Rocks	SL-350-03			286[c]		174	6		49					242				5	757
Pup Rock and Adjacent Mainland	SL-350-04			774[m]			2		44									3	820
Lion Rock	SL-350-05			424[m]		H	1		24					18				4	467
Diablo Rock & Adjacent Mainland	SL-350-06			384[m]		H	H		26					5				3	415
Diablo Canyon Nuclear Power Plant South	SL-350-07			P[j]		114	1		28					48				5	191
Double Rock Region	SL-350-08					18	3		6					5				4	32
Pecho Rock	SL-350-09			190[m]					14								H	2	204
Smith and Whaler Islands	SL-350-10						1		H					18				2	19
Port San Luis	SL-350-11						1							19				2	20
Fossil Point	SL-350-12					46	7		21					131				4	205

Appendix 1A cont. Available marine bird colony data along coast of north/central California: number of breeding birds by species.

Colony Name	California Colony Code	Leach's Storm-Petrel	Ashy Storm-Petrel	Brandt's Cormo-rant	Double-crested Cormo-rant	Pelagic Cormo-rant	Black Oyster-catcher	Cali-fornia Gull [9]	Western Gull	Caspian Tern [9]	Forsters Tern [9]	Least Tern	Common Murre	Pigeon Guille-mot	Cassin's Auklet	Rhino-ceros Auklet	Tufted Puffin	No. of Breeding Species	Colony Size (No. of Breeding Birds)
Shell Beach Rocks	SL-350-13			P[l]	260[c]	H	11		18					153		5		6	447
North Pismo Beach Rocks	SL-350-14					15	3		10					104		1		5	133
Oso Flako Lake North	SL-350-15											6						1	6
Oso Flako Lake South	SL-350-16											H						0	0
Guadalupe Dunes North	SL-344-01											H						0	0
Guadalupe Dunes South	SB-344-01											40						1	40
Mussel Point	SB-344-02					9			7					5				3	21
Point Sal	SB-344-03								4					45		3		3	52
TOTALS	-	1,510	2,070	41,515	6,490	5,681	330	4,764	22,600	3,406	3,550	224	269,720	6,432	18,869	770	147	-	**388,080**

Notes

1. This table represents the best available information on 281 colonies of 16 breeding marine bird species that in the study area along the central California coast, from Pt. Arena to Pt. Sal, CA and also in San Francisco Bay. The colonies contain approximately 388,080 breeding birds; maximum colony size=184,442; average size=1,386; median=40. Colonies are listed north to south. See #3 below for a reference to this table. Additional data on these colonies are in worksheet 2 of this file. Information on additional colonies and species is available from the U.S. Fish & Wildlife Service & NOAA's National Marine Sanctuary Program. Colony counts are always changing; this is a "snapshot" of best available data from a variety of sources.
2. The numbers of breeding birds is reported here. See species accounts for estimation methods; some are actual counts and some are estimates based on actual counts with corrections.
3. This table is in a report with the following working reference: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. Phase II of a Biogeographic Assessment off North/Central California – In Support of the National Marine Sanctuaries of Cordell Bank, Gulf of the Farallones, and Monterey Bay. Prepared by NOAA NCCOS' Biogeography Branch and Partners. Silver Spring, MD. Please contact tracy.gill@noaa.gov if you have questions.
4. Key to symbols in table: H = historically-nesting species; P = present and breeding or probably breeding. A "blank" in the table indicates no available data, or the species is not present there. The California Colony Code includes a reference to the county or location: for example, SFB indicates the colony is in San Francisco Bay; SO in the code indicates the colony is in Sonoma County.
5. Species reported as present or probably present (P) were included in No. of Breeding Species but not in Colony Size.
6. Species reported as historical (H) were not included in No. of Breeding Species or Colony Size.
7. Although most marine bird species that breed in San Francisco Bay do not significantly use the ocean study area, Bay colonies were included because: 1) some bay breeders do use the ocean; and 2) the data were available.
8. Most data were collected from 1989-1990 and are from Carter et. (1992). Superscript notes in the table reference data other than from Carter et. (1992) and are from the following sources:
   a: Capitolo et al. (2006); updates from 2004 for Common Murre, Brandt's Cormorant, and Double-crested Cormorant at selected colonies. Cormorant numbers are estimates, based on two times the number of nests observed. To estimate the number of breeding birds for Common Murre, the counts at colonies are corrected by multiplying the number of birds counted by 1.67.
   b: Gerry McChesney, personal communication (2006).
   c: Capitolo et al. 2004; updates from 2003 for Brandt's Cormorant and Double-Crested Cormorant.
   d: McChesney et al. 2005; updates from 2004 for San Pedro Rock, Devil's Slide Rock and Mainland.
   e: Warzybok et al. 2002; updates from 2002 are included for the following five species at South Farallon Island: Cassin's Auklet, Tufted Puffin, Pigeon Guillemot, Pelagic Cormorant and Western Gull.
   f: Sydeman et al. 1998; updates from 1992 for Ashy Storm-Petrel for Southeast Farallon Island.
   g: Whitworth et al. 2002; updates from 2001 for Ashy Storm-Petrel at Bird Rock, Point Reyes and Double Point Rocks. Provided are means of reported ranges for population estimates.
   h: Thayer and Sydeman 2002a,b; updates from 2002 for Cassin's Auklet and Rhinoceros Auklet in the vicinity of Año Nuevo; this does not include the small breeding area within the Brandt's Cormorant colony.
   i. Sowls et al. (1980). In 1989, no Leach's Storm-Petrels were detected during one night of surveys, indicating possible decline or loss of colony but survey effort was low (Carter et al. 1992).
   j: Ainley and Lewis, 1974: estimates of breeding birds for Leach's Storm-Petrels. Based on surveys conducted since 1987, this colony appears to have declined substantially (W.J. Sydeman and G.J. McChesney, pers. comm.).
   k: Personal communication from Harry Carter, 2007.
   l: Colonies indicated as Present ("P") were inactive in 2003 (Capitolo et al. 2004) but active and not counted at least one year during 2000-2004 period (G.J. McChesney, pers. comm.).
   m: McChesney et al. 2000b; available data for Brandt's Cormorant colonies in 2000 were used for colonies that were inactive when last assessed in 2003 (Capitolo et al. 2004).
   n: U.S. Fish and Wildlife Service, Salinas River National Wildlife Refuge, unpublished data from 2004.
   o: McChesney et al. (2000a). For Ashy Storm-Petrel, two, one and one nest each were recorded at Bench Mark-227x, Castle Rocks and Mainland, and Hurricane Point Rocks, respectively, and 20-60 breeding birds were estimated for the three colonies combined.
9. Updated numbers for California Gull, Forster's Tern, and Caspian Tern in San Francisco Bay are available in Strong et al. (2004) but were not included in this table.
10. The number of breeding bird species and individuals at a colony can vary significantly from year to year; this table reflects a combination of survey "snapshots". It was the best available information at the time. It is highly likely there are more species and many more birds in each colony than are shown in this table, and some colonies shown here have come and gone.
11. Although they do not breed in the study area, Marbled Murrelets feed in the study area and breed nearby at Big Basin State Park and vicinity, in the Santa Cruz Mountains, along the central CA coast. The Santa Cruz population has about 500 birds, and probably less than 200 are breeding there (S. Hampton, CDFG, pers. comm.). The species forages in the coastal ocean study area, and is listed as state-endangered and federally-threatened. A representative location (37°08'45" N x 122°18'00"W) for Marbled Murrelets breeding at Big Basin State Park was included on the map, but not in this table because it does not represent an actual nesting location for the species.
12. This table was compiled by Janet Casey (R.G. Ford Consulting Co.), with help from Tracy Gill (NOAA) and Gerry MCChesney (USFWS) on data collection and revisions, and Jamie Higgins (NOAA) on revisions. Please contact tracy.gill@noaa.gov if you have questions.
13. See Appendix 1B for additional information on the colonies.
14. An entry for Marbled Murrelet was not included in the table because the data available references a general area for Marbled Murrelet nests and not a specific location. The location referenced here is the Big Basin State Park and vicinity; the approx. position of the Park is 37°08'45"N by 122°18'00"W and the approx. number of breeding Marbled Murrelets for that area is 200 birds.

Appendix 1B. Available marine bird colony data along coast of north/central California: related colony information.

Colony Name	California Colony Code	USFWS Colony Number	Latitude	Longitude	No. of Breeding Species	Colony Size (No. of Breeding Birds)	Percent Total	Downcoast Order (North to South)	Decimal Latitude	Decimal Longitude
Point Arena	ME-384-01	404-017	38°57'20" N	123°44'30" W	4	217	0.056%	1	38.95556	-123.74167
Sea Lion Rocks	ME-384-02	404-001	38°56'07" N	123°43'45" W	4	131	0.034%	2	38.93528	-123.72917
Sea Lion Rocks to Arena Cove	ME-384-03	404-042	38°55'41" N	123°43'45" W	3	203	0.052%	3	38.92806	-123.72917
Moat Cove	ME-384-04	404-018	38°53'10" N	123°41'00" W	1	10	0.003%	4	38.88611	-123.68333
Section 30 Cove	ME-384-05	404-019	38°52'59" N	123°40'10" W	2	50	0.013%	5	38.88306	-123.66944
Saunders Landing	ME-384-06	404-020	38°51'13" N	123°39'05" W	2	28	0.007%	6	38.85361	-123.65139
Iverson Point	ME-384-07	404-002	38°50'39" N	123°38'37" W	2	47	0.012%	7	38.84417	-123.64361
Triplett Gulch	ME-384-08	404-021	38°49'00" N	123°36'15" W	3	178	0.046%	8	38.81667	-123.60417
Fish Rock Cove	ME-384-09	404-022	38°47'45" N	123°35'20" W	2	34	0.009%	9	38.79583	-123.58889
Fish Rocks	ME-384-10	404-003	38°48'00" N	123°35'31" W	9	905	0.233%	10	38.80000	-123.59194
Collins Landing to Gualala River	ME-384-11	404-023	38°46'00" N	123°32'40" W	3	281	0.072%	11	38.76667	-123.54444
Gualala Point Island	SO-384-01	404-004	38°45'04" N	123°31'42" W	5	324	0.083%	12	38.75111	-123.52833
Del Mar Point	SO-384-02	404-024	38°44'15" N	123°31'00" W	1	9	0.002%	13	38.73750	-123.51667
Sea Ranch	SO-384-03	404-025	38°42'00" N	123°27'30" W	4	153	0.039%	14	38.70000	-123.45833
Black Point to Stewart's Point	SO-384-04	404-026	38°40'00" N	123°25'15" W	4	62	0.016%	15	38.66667	-123.42083
Stewart's Point to Rocky Point	SO-382-01	404-027	38°39'00" N	123°23'44" W	4	86	0.022%	16	38.65000	-123.39556
Horseshoe Cove	SO-382-02	404-028	38°36'30" N	123°22'10" W	3	125	0.032%	17	38.60833	-123.36944
Cannon Gulch to Stump Beach	SO-382-03	404-029	38°35'30" N	123°20'30" W	3	95	0.024%	18	38.59167	-123.34167
Gerstle Cove to Stillwater Cove	SO-382-04	404-030	38°33'00" N	123°18'45" W	4	142	0.037%	19	38.55000	-123.31250
Bench Mark 125 to Timber Cove	SO-382-05	404-031	38°32'20" N	123°17'00" W	4	106	0.027%	20	38.53889	-123.28333
Windermere Point to Jewell Gulch	SO-382-06	404-043	38°30'20" N	123°13'00" W	4	49	0.013%	21	38.50556	-123.21667
Northwest Cape Rocks	SO-382-07	404-032	38°30'40" N	123°15'17" W	2	53	0.014%	22	38.51111	-123.25472
Russian Gulch	SO-382-08	404-033	38°28'00" N	123°09'36" W	5	376	0.097%	23	38.46667	-123.16000
Russian River Rocks	SO-382-09	404-005	38°27'14" N	123°08'34" W	6	414	0.107%	24	38.45389	-123.14278
Goat Rock to Peaked Hill	SO-382-10	404-044	38°26'14" N	123°07'30" W	2	7	0.002%	25	38.43722	-123.12500
Arched Rock	SO-382-11	404-006	38°25'53" N	123°07'32" W	4	481	0.124%	26	38.43139	-123.12556
Peaked Hill	SO-382-12	404-034	38°25'45" N	123°07'10" W	4	53	0.014%	27	38.42917	-123.11944
Gull Rock	SO-382-13	404-035	38°25'30" N	123°07'10" W	6	160	0.041%	28	38.42500	-123.11944
Shell-Wright Beach Rocks	SO-382-14	404-036	38°25'00" N	123°06'00" W	5	200	0.052%	29	38.41667	-123.10000
Duncan Point to Arched Rock	SO-382-15	404-037	38°22'30" N	123°05'00" W	3	174	0.045%	30	38.37500	-123.08333
Bodega Head	SO-380-01	404-038	38°18'00" N	123°03'45" W	4	121	0.031%	31	38.30000	-123.06250
Bodega Rock	SO-380-02	404-008	38°17'48" N	123°02'50" W	4	778	0.200%	32	38.29667	-123.04722
Bodega Harbor	SO-380-03	404-045	38°19'21" N	123°02'30" W	2	14	0.004%	33	38.32250	-123.04167
Pinnacle Rock	SO-380-04	404-039	38°18'20" N	123°01'10" W	5	84	0.022%	34	38.30556	-123.01944
Sonoma-Marin County Line	MA-380-01	404-040	38°17'20" N	123°00'20" W	4	128	0.033%	35	38.28889	-123.00556
Dillon Beach Rocks	MA-380-02	404-009	38°16'26" N	122°59'11" W	6	230	0.059%	36	38.27389	-122.98639
Tomales Point	MA-380-03	404-011	38°12'13" N	122°57'39" W	3	150	0.039%	37	38.20361	-122.96083
Bird Rock (Marin Co.)	MA-380-04	404-010	38°13'49" N	122°59'35" W	7	894	0.230%	38	38.23028	-122.99306
Elephant Rock Complex	MA-380-05	404-041	38°11'00" N	122°58'00" W	2	36	0.009%	39	38.18333	-122.96667
Point Reyes	MA-374-01	429-001	37°59'30" N	123°00'00" W	9	43,061	11.096%	40	37.99167	-123.00000
Coast Campground South	MA-374-02	429-042	38°00'52" N	122°51'14" W	1	63	0.016%	41	38.01444	-122.85389
Point Resistance	MA-374-03	429-024	37°59'55" N	122°49'40" W	4	7,177	1.849%	42	37.99861	-122.82778
Millers Point Rocks	MA-374-04	429-002	37°58'53" N	122°48'35" W	6	1,951	0.503%	43	37.98139	-122.80972
Double Point Rocks	MA-374-05	429-003	37°56'51" N	122°47'08" W	6	16,235	4.184%	44	37.94750	-122.78556
Stinson Beach to Rocky Point	MA-374-06	429-043	37°53'08" N	122°37'38" W	1	6	0.002%	45	37.88556	-122.62722
Gull Rock Area	MA-374-07	429-025	37°52'35" N	122°37'00" W	4	23	0.006%	46	37.87639	-122.61667
Muir Beach Headlands to Tennessee Cove	MA-374-08	429-026	37°51'00" N	122°33'45" W	4	97	0.025%	47	37.85000	-122.56250
Bird Island (Marin Co.)	MA-374-09	429-007	37°49'27" N	122°32'09" W	3	62	0.016%	48	37.82417	-122.53583
Point Bonita	MA-374-10	429-008	37°48'55" N	122°31'40" W	3	171	0.044%	49	37.81528	-122.52778
Bonita Cove	MA-374-11	429-027	37°49'30" N	122°31'00" W	3	10	0.003%	50	37.82500	-122.51667
Point Diablo Bluffs and Needles	MA-374-12	429-028	37°49'30" N	122°29'00" W	2	49	0.013%	51	37.82500	-122.48333

Appendix 1B cont. Available marine bird colony data along coast of north/central California: related colony information.

Colony Name	California Colony Code	USFWS Colony Number	Latitude	Longitude	No. of Breeding Species	Colony Size (No. of Breeding Birds)	Percent Total	Downcoast Order (North to South)	Decimal Latitude	Decimal Longitude
Yellow Bluff	SFB-MA-01	429-053	37°50'13" N	122°28'15" W	1	2	0.001%	52	37.83694	-122.47083
Sausalito Point Area	SFB-MA-02	429-054	37°51'22" N	122°28'34" W	1	4	0.001%	53	37.85611	-122.47611
Peninsula Point and Cone Rock	SFB-MA-03	429-055	37°51'44" N	122°27'25" W	1	6	0.002%	54	37.86222	-122.45694
Angel Island	SFB-MA-04	429-056	37°51'18" N	122°26'24" W	1	6	0.002%	55	37.85500	-122.44000
Bluff Point to Paradise Cay	SFB-MA-05	429-057	37°53'47" N	122°27'37" W	1	4	0.001%	56	37.89639	-122.46028
Point San Quentin	SFB-MA-06	429-058	37°56'48" N	122°28'20" W	1	6	0.002%	57	37.94667	-122.47222
Marin Islands	SFB-MA-07	429-059	37°57'57" N	122°28'15" W	2	66	0.017%	58	37.96583	-122.47083
The Sisters and Point San Pedro	SFB-MA-08	429-041	37°59'22" N	122°26'25" W	1	96	0.025%	59	37.98944	-122.44028
Rat Rock	SFB-MA-09	404-046	38°00'16" N	122°27'40" W	1	2	0.001%	60	38.00444	-122.46111
Southwest San Pablo Bay Duck Blinds	SFB-MA-10	404-047	38°02'15" N	122°28'03" W	1	16	0.004%	61	38.03750	-122.46750
Marin County-West San Pablo Bay Ship Channel	SFB-MA-11	404-048	38°04'17" N	122°25'38" W	1	14	0.004%	62	38.07139	-122.42722
Sonoma Co.-West San Pablo Bay Ship Channel	SFB-SO-01	404-049	38°06'35" N	122°27'52" W	1	2	0.001%	63	38.10972	-122.46444
Little Island	SFB-NA-01	404-050	38°10'52" N	122°20'31" W	0	0	0.000%	64	38.18111	-122.34194
Russ Island	SFB-NA-02	404-051	38°10'57" N	122°19'17" W	1	4	0.001%	65	38.18250	-122.32139
Island No. 2	SFB-NA-03	404-052	38°09'56" N	122°19'09" W	1	50	0.013%	66	38.16556	-122.31917
Knight Island	SFB-SN-01	404-053	38°08'16" N	122°17'58" W	4	754	0.194%	67	38.13778	-122.29944
White Slough	SFB-SN-02	404-054	38°07'39" N	122°15'19" W	1	40	0.010%	68	38.12750	-122.25528
North San Pablo Bay Radar Target	SFB-SN-03	404-055	38°06'04" N	122°19'41" W	1	30	0.008%	69	38.10111	-122.32806
Northeast San Pablo Bay Beacon	SFB-SN-04	404-056	38°04'17" N	122°17'17" W	2	10	0.003%	70	38.07139	-122.28806
Mare Island Strait	SFB-SN-05	404-057	38°04'40" N	122°14'43" W	1	20	0.005%	71	38.07778	-122.24528
Commodore Jones Point to Benicia Point	SFB-SN-06	404-058	38°02'37" N	122°09'54" W	1	10	0.003%	72	38.04361	-122.16500
Benicia Point to Army Point	SFB-SN-07	404-059	38°02'32" N	122°09'08" W	1	6	0.002%	73	38.04222	-122.15222
Mothball Fleet	SFB-SN-08	404-060	38°05'00" N	122°05'00" W	1	10	0.003%	74	38.08333	-122.08333
Wheeler Island	SFB-SN-09	405-001	38°04'37" N	121°57'47" W	1	252	0.065%	75	38.07694	-121.96306
Donlon Island	SFB-SA-01	405-002	38°01'45" N	121°46'50" W	0	0	0.000%	76	38.02917	-121.78056
Pittsburgh Pacific Gas & Electric Plant	SFB-CC-01	405-003	38°02'17" N	121°54'29" W	1	8	0.002%	77	38.03806	-121.90806
Port Chicago Allied Chemical Co.	SFB-CC-02	405-004	38°02'56" N	121°59'09" W	0	0	0.000%	78	38.04889	-121.98583
Suisun Point Area	SFB-CC-03	404-061	38°02'15" N	122°07'06" W	1	6	0.002%	79	38.03750	-122.11833
Nevada Dock	SFB-CC-04	404-062	38°02'11" N	122°10'22" W	1	2	0.001%	80	38.03639	-122.17278
Eckley to Selby	SFB-CC-05	404-063	38°03'27" N	122°13'11" W	1	4	0.001%	81	38.05750	-122.21972
Davis Point Unocal Wharf	SFB-CC-06	404-064	38°03'16" N	122°15'15" W	1	22	0.006%	82	38.05444	-122.25417
Hercules Wharf	SFB-CC-07	404-065	38°01'23" N	122°17'29" W	1	2	0.001%	83	38.02306	-122.29139
Pinole Point	SFB-CC-08	404-066	38°00'25" N	122°21'46" W	1	2	0.001%	84	38.00694	-122.36278
East San Pablo Bay Ship Channel	SFB-CC-09	404-067	38°01'48" N	122°22'18" W	1	6	0.002%	85	38.03000	-122.37167
The Brothers	SFB-CC-10	429-040	37°57'47" N	122°26'00" W	2	179	0.046%	86	37.96306	-122.43333
Castro Point Area	SFB-CC-11	429-060	37°56'08" N	122°24'55" W	1	8	0.002%	87	37.93556	-122.41528
Richmond-San Rafael Bridge	SFB-CC-12	429-061	37°56'01" N	122°25'26" W	2	1,282	0.330%	88	37.93361	-122.42389
Castro Rocks	SFB-CC-13	429-062	37°55'57" N	122°24'57" W	0	0	0.000%	89	37.93250	-122.41583
Red Rock	SFB-CC-14	429-039	37°55'45" N	122°25'50" W	1	384	0.099%	90	37.92917	-122.43056
Standard Oil Long Wharf	SFB-CC-15	429-063	37°55'31" N	122°24'14" W	1	6	0.002%	91	37.92528	-122.40389
Richmond Harbor Entrance Channel	SFB-CC-16	429-064	37°54'18" N	122°22'38" W	1	12	0.003%	92	37.90500	-122.37722
Brooks Island Area	SFB-CC-17	429-065	37°53'47" N	122°21'16" W	3	220	0.057%	93	37.89639	-122.35444
Richmond Inner Harbor	SFB-CC-18	429-066	37°54'36" N	122°21'42" W	1	12	0.003%	94	37.91000	-122.36167
Albany Hill Cove	SFB-AL-01	429-067	37°53'33" N	122°18'49" W	1	2	0.001%	95	37.89250	-122.31361
Berkeley Yacht Harbor Breakwaters	SFB-AL-02	429-068	37°51'59" N	122°19'05" W	1	38	0.010%	96	37.86639	-122.31806
Berkeley Pier	SFB-AL-03	429-069	37°51'15" N	122°20'29" W	1	40	0.010%	97	37.85417	-122.34139
Bay Bridge "Toll Plaza Point"	SFB-AL-04	429-070	37°49'52" N	122°18'47" W	1	2	0.001%	98	37.83111	-122.31306
San Fran-Oakland Bay Bridge E.	SFB-AL-05	429-071	37°49'10" N	122°20'31" W	2	1,530	0.394%	99	37.81944	-122.34194
Oakland Outer Harbor	SFB-AL-06	429-072	37°48'59" N	122°19'25" W	1	8	0.002%	100	37.81639	-122.32361
Oakland Middle Harbor	SFB-AL-07	429-073	37°48'01" N	122°21'50" W	1	10	0.003%	101	37.80028	-122.36389

Appendix 1B cont. Available marine bird colony data along coast of north/central California: related colony information.

Colony Name	California Colony Code	USFWS Colony Number	Latitude	Longitude	No. of Breeding Species	Colony Size (No. of Breeding Birds)	Percent Total	Downcoast Order (North to South)	Decimal Latitude	Decimal Longitude
Oakland Inner Harbor	SFB-AL-08	429-074	37°47'27" N	122°18'07" W	1	6	0.002%	102	37.79083	-122.30194
Government Island Area	SFB-AL-09	429-075	37°47'05" N	122°15'18" W	1	2	0.001%	103	37.78472	-122.25500
Alameda Naval Air Station	SFB-AL-10	429-010	37°47'12" N	122°19'49" W	3	1,840	0.474%	104	37.78667	-122.33028
Ballena Bay	SFB-AL-11	429-076	37°46'00" N	122°17'13" W	0	0	0.000%	105	37.76667	-122.28694
Bay Farm Island	SFB-AL-12	429-077	37°44'36" N	122°15'00" W	0	0	0.000%	106	37.74333	-122.25000
Oakland International Airport	SFB-AL-13	429-011	37°43'22" N	122°14'42" W	1	18	0.005%	107	37.72278	-122.24500
Mulford Landing Channel	SFB-AL-14	429-078	37°41'26" N	122°11'51" W	1	2	0.001%	108	37.69056	-122.19750
Hayward Marsh, Basin 3A	SFB-AL-15	429-079	37°37'47" N	122°08'44" W	1	2	0.001%	109	37.62972	-122.14556
Baumberg Plant #1, Pond 10	SFB-AL-16	429-015	37°36'41" N	122°08'41" W	1	814	0.210%	110	37.61139	-122.14472
Baumberg Plant #1, Ponds 10 &11	SFB-AL-17	429-080	37°36'42" N	122°08'17" W	0	0	0.000%	111	37.61167	-122.13806
Baumberg Plant #1, Pond 8A	SFB-AL-18	429-081	37°35'49" N	122°07'52" W	1	313	0.081%	112	37.59694	-122.13111
Baumberg Plant #1, Pond 6B	SFB-AL-19	429-082	37°35'53" N	122°06'39" W	1	85	0.022%	113	37.59806	-122.11083
Baumberg Plant #1, Ponds 1, 2, 7	SFB-AL-20	429-017	37°35'08" N	122°07'30" W	0	0	0.000%	114	37.58556	-122.12500
Baumberg Plant #2, Ponds 2, 4, 7	SFB-AL-21	429-017	37°34'49" N	122°07'06" W	0	0	0.000%	115	37.58028	-122.11833
Baumberg Plant #1, Ponds 4, 5, 7	SFB-AL-22	429-085	37°34'51" N	122°06'33" W	1	94	0.024%	116	37.58083	-122.10917
Plant #1, Pond 1A-NW	SFB-AL-23	429-017	37°34'07" N	122°07'27" W	0	0	0.000%	117	37.56861	-122.12417
Plant #1, Pond 1A	SFB-AL-24	429-087	37°34'02" N	122°07'07" W	0	0	0.000%	118	37.56722	-122.11861
Plant #1, Pond 2A	SFB-AL-25	429-088	37°33'36" N	122°07'24" W	1	125	0.032%	119	37.56000	-122.12333
Plant #1, Pond 3A	SFB-AL-26	429-089	37°33'14" N	122°06'40" W	0	0	0.000%	120	37.55389	-122.11111
Plant #1, Ponds 4, 5, 6, 7	SFB-AL-27	429-090	37°32'03" N	122°06'10" W	0	0	0.000%	121	37.53417	-122.10278
KGO Radio Towers	SFB-AL-28	429-091	37°31'31" N	122°06'00" W	0	0	0.000%	122	37.52528	-122.10000
Plant #1, Pond 3	SFB-AL-29	429-092	37°30'45" N	122°06'02" W	1	99	0.026%	123	37.51250	-122.10056
Plant #1, Pond 1	SFB-AL-30	429-093	37°31'32" N	122°04'37" W	1	204	0.053%	124	37.52556	-122.07694
Plant #2, Ponds 11, 26	SFB-AL-31	429-094	37°29'50" N	122°02'42" W	0	0	0.000%	125	37.49722	-122.04500
Plant #2, Ponds 4, 5	SFB-AL-32	429-019	37°28'27" N	121°59'17" W	1	634	0.163%	126	37.47417	-121.98806
Alviso Plant, Pond A17	SFB-SR-01	430-002	37°27'33" N	121°58'03" W	1	25	0.006%	127	37.45917	-121.96750
Alviso Plant, Pond A18	SFB-SR-02	430-003	37°26'49" N	121°56'33" W	0	0	0.000%	128	37.44694	-121.94250
Alviso Plant, Pond A16	SFB-SR-03	430-004	37°26'31" N	121°57'43" W	1	43	0.011%	129	37.44194	-121.96194
Alviso Plant, Ponds A9, A10	SFB-SR-04	430-005	37°26'57" N	121°59'34" W	2	512	0.132%	130	37.44917	-121.99278
Alviso Plant, Pond A8	SFB-SR-05	429-020	37°25'43" N	121°59'42" W	1	158	0.041%	131	37.42861	-121.99500
Alviso Plant, Pond A7	SFB-SR-06	429-020	37°26'29" N	122°00'27" W	1	95	0.024%	132	37.44139	-122.00750
Alviso Plant, Pond A6	SFB-SR-07	429-020	37°27'24" N	122°01'26" W	3	4,526	1.166%	133	37.45667	-122.02389
Alviso Plant, Pond A5	SFB-SR-08	429-020	37°26'37" N	122°01'23" W	0	0	0.000%	134	37.44361	-122.02306
Alviso Plant, Pond B2	SFB-SR-09	429-020	37°26'22" N	122°02'52" W	1	480	0.124%	135	37.43944	-122.04778
Alviso Plant, Pond A1	SFB-SR-10	429-099	37°26'11" N	122°05'07" W	2	40	0.010%	136	37.43639	-122.08528
Charleston Slough	SFB-SR-11	429-100	37°26'33" N	122°05'22" W	1	250	0.064%	137	37.44250	-122.08944
Redwood City Plant, Pond 1	SFB-SM-01	429-101	37°29'51" N	122°08'59" W	1	100	0.026%	138	37.49750	-122.14972
Redwood City Plant, Pond 3	SFB-SM-02	429-102	37°29'15" N	122°08'48" W	0	0	0.000%	139	37.48750	-122.14667
Bair Island, Pond A10	SFB-SM-03	429-103	37°31'01" N	122°13'52" W	0	0	0.000%	140	37.51694	-122.23111
Bair Island, Pond A9	SFB-SM-04	429-016	37°30'58" N	122°14'17" W	0	0	0.000%	141	37.51611	-122.23806
Bair Island, Pond B3	SFB-SM-05	429-016	37°31'42" N	122°14'03" W	0	0	0.000%	142	37.52833	-122.23417
Bair Island, Pond B1	SFB-SM-06	429-016	37°32'12" N	122°12'25" W	2	863	0.222%	143	37.53667	-122.20694
San Mateo Bridge and PG&E Towers	SFB-SM-07	429-107	37°35'24" N	122°14'40" W	2	216	0.056%	144	37.59000	-122.24444
San Francisco Ship Channel	SFB-SM-08	429-108	37°40'05" N	122°21'31" W	1	8	0.002%	145	37.66806	-122.35861
Oyster Point Area	SFB-SM-09	429-109	37°39'01" N	122°22'49" W	2	12	0.003%	146	37.65028	-122.38028
Double Rock	SFB-SF-01	429-110	37°43'14" N	122°22'52" W	1	2	0.001%	147	37.72056	-122.38111
Hunter's Point	SFB-SF-02	429-111	37°43'42" N	122°21'22" W	1	50	0.013%	148	37.72833	-122.35611
Lash Lighter Basin	SFB-SF-03	429-112	37°44'24" N	122°22'05" W	1	40	0.010%	149	37.74000	-122.36806
Potrero Point	SFB-SF-04	429-113	37°45'19" N	122°22'47" W	1	6	0.002%	150	37.75528	-122.37972
San Francisco Piers South	SFB-SF-05	429-114	37°46'51" N	122°22'59" W	1	232	0.060%	151	37.78083	-122.38306
San Fran.-Oakland Bay Bridge West	SFB-SF-06	429-115	37°48'03" N	122°22'26" W	1	48	0.012%	152	37.80083	-122.37389

Appendix 1B cont. Available marine bird colony data along coast of north/central California: related colony information.

Colony Name	California Colony Code	USFWS Colony Number	Latitude	Longitude	No. of Breeding Species	Colony Size (No. of Breeding Birds)	Percent Total	Downcoast Order (North to South)	Decimal Latitude	Decimal Longitude
Yerba Buena Island	SFB-SF-07	429-038	37°48'34" N	122°22'15" W	3	67	0.017%	153	37.80944	-122.37083
Treasure Island	SFB-SF-08	429-116	37°49'48" N	122°21'53" W	1	96	0.025%	154	37.83000	-122.36472
San Francisco Piers North	SFB-SF-09	429-117	37°48'27" N	122°24'00" W	1	62	0.016%	155	37.80750	-122.40000
Pier 45	SFB-SF-10	429-037	37°48'34" N	122°25'00" W	1	66	0.017%	156	37.80944	-122.41667
Alcatraz Island	SFB-SF-11	429-036	37°49'34" N	122°25'20" W	3	2,483	0.640%	157	37.82611	-122.42222
Fort Point Rock to Helmut Rock	SF-374-01	429-044	37°48'15" N	122°28'38" W	1	6	0.002%	158	37.80417	-122.47722
Lobos Rock and Land's End	SF-374-02	429-029	37°47'15" N	122°30'20" W	3	270	0.070%	159	37.78750	-122.50556
Seal Rocks	SF-374-03	429-009	37°46'42" N	122°30'53" W	3	233	0.060%	160	37.77833	-122.51472
Eel Rock Cliffs	SF-372-05	429-031	37°24'15" N	122°25'30" W	1	9	0.002%	161	37.40417	-122.42500
North Farallon Islands	SF-FAI-01	429-051	37°46'04" N	123°05'56" W	6	72,203	18.606%	162	37.76778	-123.09889
South Farallon Islands	SF-FAI-02	429-052	37°42'00" N	123°00'00" W	12	184,442	47.528%	163	37.70000	-123.00000
Mussel Rock Area	SM-374-01	429-045	37°40'00" N	122°29'47" W	2	11	0.003%	164	37.66667	-122.49639
Mori Point	SM-372-01	429-046	37°37'05" N	122°29'47" W	2	49	0.013%	165	37.61806	-122.49639
San Pedro Rock	SM-372-02	429-013	37°35'43" N	122°31'20" W	3	142	0.037%	166	37.59528	-122.52222
Devil's Slide Rock and Mainland	SM-372-03	429-014	37°34'39" N	122°31'14" W	5	1,354	0.349%	167	37.57750	-122.52056
Pillar Point	SM-372-04	429-030	37°29'30" N	122°29'55" W	2	7	0.002%	168	37.49167	-122.49861
Seal Rock Cliffs	SM-372-06	429-032	37°23'00" N	122°25'00" W	4	174	0.045%	169	37.38333	-122.41667
Martin's Beach	SM-372-07	429-033	37°22'00" N	122°24'30" W	3	129	0.033%	170	37.36667	-122.40833
Pomponio Beach to Pescadero Beach	SM-370-01	429-047	37°16'42" N	122°24'30" W	2	22	0.006%	171	37.27833	-122.40833
Pigeon Point	SM-370-02	429-034	37°10'55" N	122°23'20" W	2	10	0.003%	172	37.18194	-122.38889
Gazos Creek North	SM-370-03	429-048	37°10'23" N	122°20'00" W	2	12	0.003%	173	37.17306	-122.33333
Año Nuevo Island	SM-370-04	429-023	37°06'30" N	122°20'09" W	7	5,065	1.305%	174	37.10833	-122.33583
Punta del Año Nuevo	SM-370-05	429-022	37°07'07" N	122°20'09" W	2	216	0.056%	175	37.11861	-122.33583
Greyhound Rock to El Jarro Point	SC-370-01	429-049	37°03'31" N	122°15'00" W	4	398	0.103%	176	37.05861	-122.25000
El Jarro Point to Davenport	SC-370-02	429-050	37°01'05" N	122°12'23" W	4	408	0.105%	177	37.01806	-122.20639
Davenport to Sand Hill Bluff	SC-364-01	454-038	36°59'45" N	122°10'33" W	3	509	0.131%	178	36.99583	-122.17583
Sand Hill Bluff to Needle Rock Point	SC-364-02	454-039	36°58'01" N	122°07'46" W	3	250	0.064%	179	36.96694	-122.12944
Needle Rock Point to Terrace Point	SC-364-03	454-040	36°57'09" N	122°05'06" W	4	275	0.071%	180	36.95250	-122.08500
Terrace Point to Point Santa Cruz	SC-364-04	454-041	36°57'09" N	122°02'30" W	4	316	0.081%	181	36.95250	-122.04167
Palm Beach	SC-364-05	454-056	36°52'00" N	121°49'05" W	0	0	0.000%	182	36.86667	-121.81806
Salinas River Old Mouth	MO-364-01	454-057	36°49'12" N	121°47'34" W	0	0	0.000%	183	36.82000	-121.79278
Elkhorn Slough Salt Ponds	MO-364-02	454-003	36°49'04" N	121°46'30" W	1	10	0.003%	184	36.81778	-121.77500
Elkhorn Slough Estuarine Reserve	MO-364-03	454-058	36°49'03" N	121°44'25" W	2	36	0.009%	185	36.81750	-121.74028
Moss Landing Harbor	MO-364-04	454-042	36°48'28" N	121°47'06" W	1	16	0.004%	186	36.80778	-121.78500
Moro Cojo Slough	MO-364-05	454-059	36°47'49" N	121°46'40" W	0	0	0.000%	187	36.79694	-121.77778
Salinas River New Mouth	MO-364-06	454-060	36°44'25" N	121°47'58" W	2	568	0.146%	188	36.74028	-121.79944
Monterey Harbor	MO-362-01	454-043	36°36'22" N	121°53'26" W	3	553	0.143%	189	36.60611	-121.89056
Cannery Row	MO-362-02	454-044	36°36'47" N	121°53'48" W	4	682	0.176%	190	36.61306	-121.89667
Bird Rock (Monterey Co.)	MO-362-03	454-006	36°35'31" N	121°57'59" W	3	1,676	0.432%	191	36.59194	-121.96639
North Carmel Bay	MO-362-04	454-045	36°33'56" N	121°56'37" W	2	15	0.004%	192	36.56556	-121.94361
Pescadero Rocks	MO-362-05	454-022	36°33'43" N	121°56'33" W	3	44	0.011%	193	36.56194	-121.94250
Guillemot Island Area	MO-362-06	454-023	36°31'45" N	121°56'47" W	5	632	0.163%	194	36.52917	-121.94639
Pinnacle Point Area	MO-362-07	454-007	36°31'35" N	121°57'14" W	4	46	0.012%	195	36.52639	-121.95389
Sand Hill Cove	MO-362-08	454-008	36°31'01" N	121°57'01" W	3	23	0.006%	196	36.51694	-121.95028
Bird Island (Monterey Co.)	MO-362-09	454-009	36°30'25" N	121°56'33" W	5	2,791	0.719%	197	36.50694	-121.94250
Carmel Highlands	MO-362-10	454-046	36°30'00" N	121°56'23" W	2	3	0.001%	198	36.50000	-121.93972
Yankee Point	MO-362-11	454-024	36°29'29" N	121°56'41" W	1	1,744	0.449%	199	36.49139	-121.94472
Yankee Point South	MO-362-12	454-047	36°28'47" N	121°56'18" W	4	32	0.008%	200	36.47972	-121.93833
Soberanes Creek Rocks	MO-362-13	454-026	36°27'18" N	121°55'35" W	5	68	0.018%	201	36.45500	-121.92639
Lobos Rocks	MO-362-14	454-025	36°27'18" N	121°56'10" W	3	16	0.004%	202	36.45500	-121.93611
Soberanes Point South	MO-362-15	454-027	36°26'47" N	121°55'35" W	4	81	0.021%	203	36.44639	-121.92639

Appendix 1B cont. Available marine bird colony data along coast of north/central California: related colony information.

Colony Name	California Colony Code	USFWS Colony Number	Latitude	Longitude	No. of Breeding Species	Colony Size (No. of Breeding Birds)	Percent Total	Downcoast Order (North to South)	Decimal Latitude	Decimal Longitude
Kasler Point North	MO-362-16	454-048	36°24'47" N	121°54'52" W	3	6	0.002%	204	36.41306	-121.91444
Rocky Point	MO-362-17	454-028	36°24'06" N	121°54'40" W	3	77	0.020%	205	36.40167	-121.91111
Bench Mark-227x	MO-362-18	454-029	36°23'21" N	121°54'13" W	5	1,092	0.281%	206	36.38917	-121.90361
Castle Rocks and Mainland	MO-362-19	454-010	36°22'35" N	121°54'25" W	7	3,322	0.856%	207	36.37639	-121.90694
Hurricane Point Rocks	MO-362-20	454-011	36°21'40" N	121°54'25" W	5	1,445	0.372%	208	36.36111	-121.90694
Point Sur	MO-360-01	454-012	36°18'22" N	121°53'39" W	3	36	0.009%	209	36.30611	-121.89417
Molera Rock	MO-360-02	454-030	36°16'45" N	121°51'30" W	2	13	0.003%	210	36.27917	-121.85833
Cooper Point and Islands	MO-360-03	454-031	36°14'55" N	121°50'10" W	4	37	0.010%	211	36.24861	-121.83611
Pfeiffer Point	MO-360-04	454-032	36°13'59" N	121°48'33" W	3	52	0.013%	212	36.23306	-121.80917
Wreck Beach South	MO-360-05	454-049	36°13'56" N	121°47'30" W	3	21	0.005%	213	36.23222	-121.79167
Grimes Point	MO-360-06	454-033	36°12'20" N	121°44'15" W	2	34	0.009%	214	36.20556	-121.73750
Lafler Rock and Mainland	MO-360-07	454-034	36°12'00" N	121°43'36" W	2	52	0.013%	215	36.20000	-121.72667
Torre Canyon Rocks	MO-360-08	454-013	36°11'25" N	121°42'46" W	2	16	0.004%	216	36.19028	-121.71278
Partington Point	MO-360-09	454-050	36°10'43" N	121°42'01" W	2	19	0.005%	217	36.17861	-121.70028
Partington Ridge North	MO-360-10	454-014	36°10'06" N	121°41'14" W	6	309	0.080%	218	36.16833	-121.68722
McWay Rocks	MO-360-11	454-015	36°09'46" N	121°40'44" W	3	29	0.007%	219	36.16278	-121.67889
Partington Ridge South	MO-360-12	454-035	36°09'36" N	121°40'25" W	3	173	0.045%	220	36.16000	-121.67361
Anderson Canyon Rocks	MO-360-13	454-016	36°09'07" N	121°39'53" W	5	65	0.017%	221	36.15194	-121.66472
Burns Creek Rocks	MO-360-14	454-017	36°08'29" N	121°39'28" W	4	15	0.004%	222	36.14139	-121.65778
Buck Creek	MO-360-15	454-051	36°08'06" N	121°38'53" W	1	2	0.001%	223	36.13500	-121.64806
Dolan Rock	MO-360-16	454-018	36°05'06" N	121°37'02" W	0	0	0.000%	224	36.08500	-121.61722
Bench Mark 223	MO-360-17	454-052	36°04'55" N	121°36'53" W	1	11	0.003%	225	36.08194	-121.61472
Square Black Rock	MO-360-18	454-019	36°04'21" N	121°36'35" W	0	0	0.000%	226	36.07250	-121.60972
Gamboa Point	MO-360-19	454-053	36°02'51" N	121°35'14" W	3	61	0.016%	227	36.04750	-121.58722
Bench Mark 247	MO-360-20	454-036	36°02'11" N	121°34'45" W	0	0	0.000%	228	36.03639	-121.57917
Lopez Rock	MO-360-21	454-020	36°01'34" N	121°34'46" W	1	0	0.000%	229	36.02611	-121.57944
Lopez Point South	MO-360-22	454-054	36°01'13" N	121°33'34" W	1	2	0.001%	230	36.02028	-121.55944
Rockland Landing North	MO-360-23	454-037	36°00'57" N	121°32'30" W	4	172	0.044%	231	36.01583	-121.54167
Rockland Landing	MO-360-24	454-055	36°00'26" N	121°31'06" W	3	25	0.006%	232	36.00722	-121.51833
Kirk Creek to Mill Creek	MO-354-01	477-039	35°59'51" N	121°29'33" W	1	2	0.001%	233	35.99750	-121.49250
36 North	MO-354-02	477-013	35°58'36" N	121°29'15" W	0	0	0.000%	234	35.97667	-121.48750
Larus Rock	MO-354-03	477-014	35°57'44" N	121°29'01" W	2	4	0.001%	235	35.96222	-121.48361
Unnamed Point	MO-354-04	477-015	35°57'00" N	121°28'51" W	1	8	0.002%	236	35.95000	-121.48083
Gorda Area	MO-354-05	477-040	35°55'55" N	121°28'59" W	3	14	0.004%	237	35.93194	-121.48306
Small Rocks & Mainland N.E. of Plaskett Rk.	MO-354-06	477-001	35°55'16" N	121°28'22" W	4	74	0.019%	238	35.92111	-121.47278
Plaskett Rock	MO-354-07	477-002	35°55'14" N	121°28'41" W	3	32	0.008%	239	35.92056	-121.47806
Cape San Martin	MO-354-08	477-003	35°53'17" N	121°27'55" W	3	663	0.171%	240	35.88806	-121.46528
Unnamed Rock	MO-354-09	477-004	35°53'05" N	121°27'46" W	1	4	0.001%	241	35.88472	-121.46278
Mainland Point across from Bird Rock	MO-354-10	477-016	35°52'37" N	121°26'59" W	2	31	0.008%	242	35.87694	-121.44972
Point North of Redwood Gulch	MO-354-11	477-017	35°50'20" N	121°24'04" W	2	4	0.001%	243	35.83889	-121.40111
Redwood Gulch Rock	MO-354-12	477-005	35°49'32" N	121°23'29" W	2	2	0.001%	244	35.82556	-121.39139
Seastack South of Redwood Gulch	MO-354-13	477-018	35°49'30" N	121°23'22" W	3	149	0.038%	245	35.82500	-121.38944
Unmapped Island	MO-354-14	477-019	35°48'20" N	121°22'26" W	3	30	0.008%	246	35.80556	-121.37389
Salmon Creek	MO-354-15	477-020	35°48'31" N	121°21'47" W	0	0	0.000%	247	35.80861	-121.36306
Arched Peninsula South of Salmon Creek	MO-354-16	477-021	35°48'05" N	121°21'14" W	2	52	0.013%	248	35.80139	-121.35389
Ragged Point Lodge Colony	SL-354-01	477-022	35°46'53" N	121°19'56" W	2	144	0.037%	249	35.78139	-121.33222
Ragged Point South	SL-354-02	477-041	35°45'24" N	121°19'28" W	1	2	0.001%	250	35.75667	-121.32444
3 Rocks	SL-354-03	477-023	35°45'06" N	121°19'07" W	4	192	0.049%	251	35.75167	-121.31861
La Cruz Rock	SL-354-04	477-006	35°42'23" N	121°18'45" W	2	18	0.005%	252	35.70639	-121.31250
Piedras Blancas Island	SL-352-01	477-007	35°39'52" N	121°17'18" W	5	1,291	0.333%	253	35.66444	-121.28833
Point Piedras Blancas	SL-352-02	477-042	35°39'45" N	121°16'53" W	2	4	0.001%	254	35.66250	-121.28139

Appendix 1B cont. Available marine bird colony data along coast of north/central California: related colony information.

Colony Name	California Colony Code	USFWS Colony Number	Latitude	Longitude	No. of Breeding Species	Colony Size (No. of Breeding Birds)	Percent Total	Downcoast Order (North to South)	Decimal Latitude	Decimal Longitude
Two Rocks South of Point Piedras Blancas	SL-352-03	477-024	35°39'30" N	121°16'02" W	4	27	0.007%	255	35.65833	-121.26722
Point San Simeon	SL-352-04	477-038	35°38'00" N	121°12'00" W	3	53	0.014%	256	35.63333	-121.20000
South San Simeon	SL-352-05	477-043	35°37'05" N	121°09'11" W	1	22	0.006%	257	35.61806	-121.15306
Island South of Cayucos Point	SL-352-06	477-025	35°26'45" N	120°55'51" W	1	6	0.002%	258	35.44583	-120.93083
Morro Rock and Pillar Rock	SL-352-07	477-026	35°22'13" N	120°52'08" W	5	1,149	0.296%	259	35.37028	-120.86889
Fairbank Point	SL-352-08	477-044	35°21'05" N	120°50'38" W	1	812	0.209%	260	35.35139	-120.84389
Morro Bay Spit	SL-252-09	477-046	35°21'33" N	120°51'24" W	0	0	0.000%	261	35.35917	-120.85667
Spooner's Cove	SL-350-01	477-027	35°16'21" N	120°53'57" W	1	56	0.014%	262	35.27250	-120.89917
Point Buchon	SL-350-02	477-009	35°15'20" N	120°53'58" W	5	368	0.095%	263	35.25556	-120.89944
Unnamed Rocks	SL-350-03	477-010	35°14'40" N	120°53'39" W	5	757	0.195%	264	35.24444	-120.89417
Pup Rock and Adjacent Mainland	SL-350-04	477-028	35°13'18" N	120°52'13" W	3	820	0.211%	265	35.22167	-120.87028
Lion Rock	SL-350-05	477-011	35°13'03" N	120°52'17" W	4	467	0.120%	266	35.21750	-120.87139
Diablo Rock & Adjacent Mainland	SL-350-06	477-029	35°12'36" N	120°51'38" W	3	415	0.107%	267	35.21000	-120.86056
Diablo Canyon Nuclear Power Plant South	SL-350-07	477-030	35°12'07" N	120°50'39" W	5	191	0.049%	268	35.20194	-120.84417
Double Rock Region	SL-350-08	477-031	35°11'39" N	120°50'29" W	4	32	0.008%	269	35.19417	-120.84139
Pecho Rock	SL-350-09	477-032	35°10'45" N	120°48'59" W	2	204	0.053%	270	35.17917	-120.81639
Smith and Whaler Islands	SL-350-10	477-033	35°09'00" N	120°45'15" W	2	19	0.005%	271	35.15000	-120.75417
Port San Luis	SL-350-11	477-045	35°10'42" N	120°44'44" W	2	20	0.005%	272	35.17833	-120.74556
Fossil Point	SL-350-12	477-034	35°10'26" N	120°43'26" W	4	205	0.053%	273	35.17389	-120.72389
Shell Beach Rocks	SL-350-13	477-035	35°09'06" N	120°40'11" W	6	447	0.115%	274	35.15167	-120.66972
North Pismo Beach Rocks	SL-350-14	477-036	35°08'57" N	120°39'23" W	5	133	0.034%	275	35.14917	-120.65639
Oso Flako Lake North	SL-350-15	477-047	35°02'57" N	120°37'16" W	1	6	0.002%	276	35.04917	-120.62111
Oso Flako Lake South	SL-350-16	477-037	35°01'14" N	120°37'26" W	0	0	0.000%	277	35.02056	-120.62389
Guadalupe Dunes North	SL-344-01	501-023	34°59'08" N	120°38'19" W	0	0	0.000%	278	34.98556	-120.63861
Guadalupe Dunes South	SB-344-01	501-001	34°57'12" N	120°38'44" W	1	40	0.010%	279	34.95333	-120.64556
Mussel Point	SB-344-02	501-017	34°55'48" N	120°39'46" W	3	21	0.005%	280	34.93000	-120.66278
Point Sal	SB-344-03	501-018	34°54'12" N	120°40'12" W	3	52	0.013%	281	34.90333	-120.67000

Notes

1. This table is a continuation of Appendix 1A and contains additional information for the colonies of breeding marine birds. It contains information on colonies in the study area, from Pt. Arena to Pt. Sal, and also in San Francisco Bay. Colonies are listed north to south. See Appendix 1A for colony information by species. Additional data to the north and south are available from the U.S. Fish and Wildlife Service (Gerry McChesney) and NOAA NCCOS (Tracy Gill).
2. Colony size is the total number of breeding birds at a colony. The 281 colonies in this table total 388,070 breeding birds and 12 marine bird species. Maximum colony size=184,442; average size=1,386; median=40.
3. The primary source for the colony data is Carter et al. 1992. Species/colony counts from other sources are in the asociated primary colony table.
4. Although most marine bird species that breed in San Francisco Bay do not signifcantly use the ocean study area, the Bay colonies were included because some Bay breeders do use the coastal ocean, and the data were available.
5. The number of breeding bird species and individuals at a colony can vary significantly from year to year; this table merely reflects a summary of survey snapshots. It was the best available information at the time, and provides an idea of where breeding marine birds occur in, and adjacent to, the study area. Therefore, the numbers for colony totals, number of species, and percent totals are only estimates.
6. The column called Downcast Order shows the north to south order for the colonies, generally based on latitude.
7. This table was compiled by Janet Casey, R.G. Ford and Associates, with help from Tracy Gill (NOAA) and Gerry McChesney (USFWS) on data collection and revisions and Jamie Higgins (NOAA) on revisions.
8. The reference for this table is: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. A Biogeographic Assessment off North/Central California: In Support of the National Marine Sanctuaries of Cordell Bank, Gulf of the Farallones, and Monterey Bay. Prepared by NOAA NCCOS' Biogeography Branch and Partners. Silver Spring, MD. Please contact tracy.gill@noaa.gov if you have questions.

Appendix 2. Body Weights of Selected North American Bird Species

Common Name	Scientific Name	Body Mass (kg)
Common Loon	*Gavia immer*	4.134
Pacific Loon	*Gavia pacifica*	1.659
Red-throated Loon	*Gavia stellata*	1.551
Western Grebe	*Aechmophorus occidentalis*	1.477
Clark's Grebe	*Aechmophorus clarkii*	1.477
Horned Grebe	*Podiceps auritus*	0.453
Red-necked Grebe	*Podiceps grisegena*	1.023
Eared Grebe	*Podiceps nigricollis*	0.297
Black Scoter	*Melanitta nigra*	0.95
Surf Scoter	*Melanitta perspicillata*	0.95
White-winged Scoter	*Melanitta fusca*	1.35
Laysan Albatross	*Phoebastria immutabilis*	3.041
Black-footed Albatross	*Phoebastria nigripes*	3.015
Northern Fulmar	*Fulmarus glacialis*	0.544
Murphy's Petrel	*Pterodroma ultima*	0.428
Cook's Petrel	*Pterodroma cookii*	0.19
Parkinson's Petrel	*Procellaria parkinsoni*	1.062
Pink-footed Shearwater	*Puffinus creatopus*	0.721
Sooty Shearwater	*Puffinus griseus*	0.787
Black-vented Shearwater	*Puffinus opisthomelas*	0.276
Buller's Shearwater	*Puffinus bulleri*	0.38
Flesh-footed Shearwater	*Puffinus carneipes*	1.56
Short-tailed Shearwater	*Puffinus tenuirostris*	0.543
Manx Shearwater	*Puffinus puffinus*	0.453
Townsend's Shearwater	*Puffinus auricularis*	0.276
Fork-tailed Storm-Petrel	*Oceanodroma furcata*	0.055
Leach's Storm-Petrel	*Oceanodroma leucorhoa*	0.04
Ashy Storm-Petrel	*Oceanodroma homochroa*	0.037
Black Storm-Petrel	*Oceanodroma melania*	0.059
Wedge-rumped Storm-Petrel	*Oceanodroma tethys*	0.024
Markham's Storm-Petrel	*Oceanodroma markhami*	0.059
Least Storm-Petrel	*Oceanodroma microsoma*	0.021
Wilson's Storm-Petrel	*Oceanites oceanicus*	0.034
Red-billed Tropicbird	*Phaethon aethereus*	0.75
Brown Booby	*Sula leucogaster*	1.248
Brown Pelican	*Pelecanus occidentalis*	3.392
White Pelican	*Pelecanus erythrorynchos*	7.5
Brandt's Cormorant	*Phalacrocorax penicillatus*	2.113
Double-crested Cormorant	*Phalacrocorax auritus*	1.679

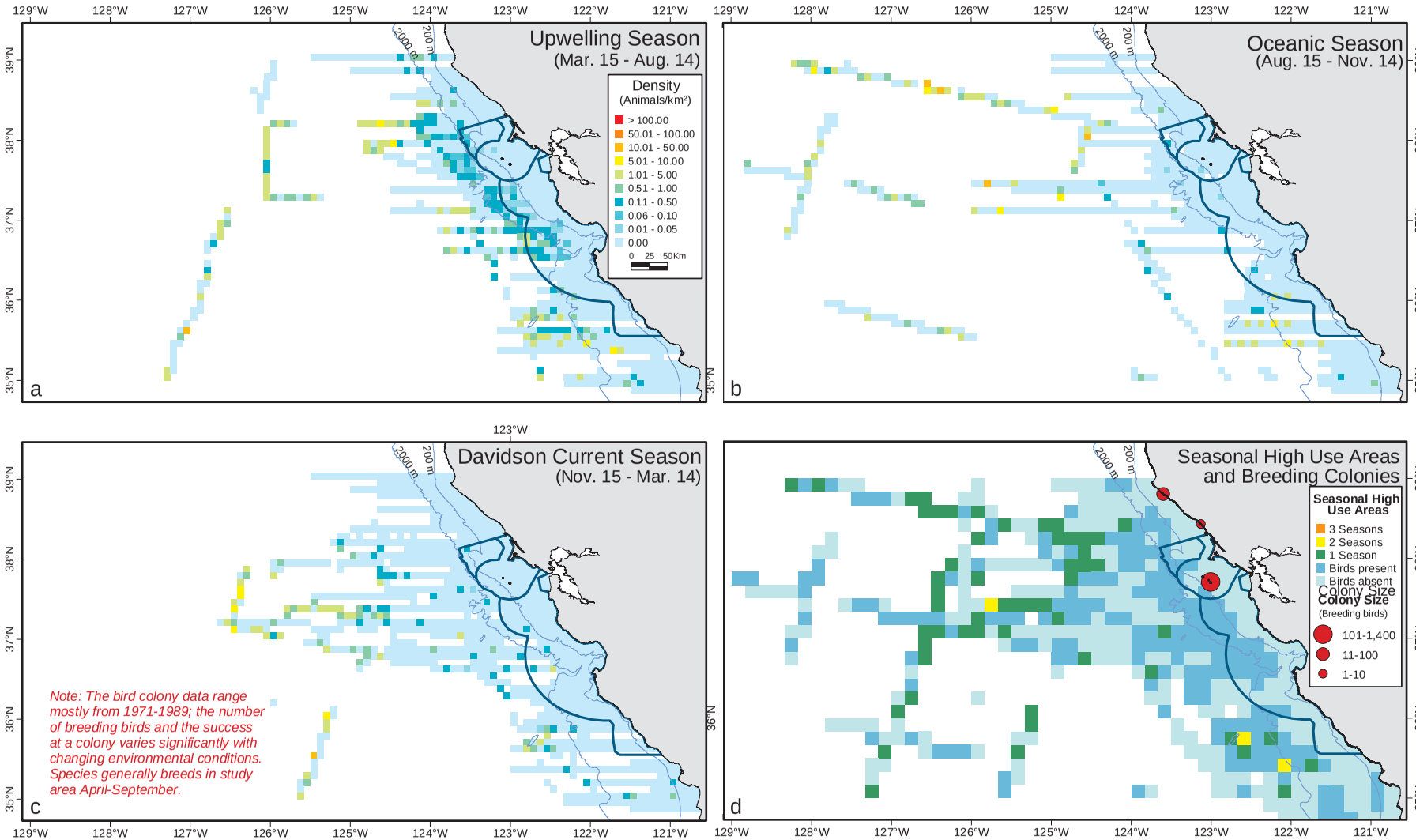
Appendix 2 cont. Body Weights of Selected North American Bird Species

Common Name	Scientific Name	Body Mass (kg)
Pelagic Cormorant	*Phalacrocorax pelagicus*	1.915
Red-necked Phalarope	*Phalaropus lobatus*	0.034
Red Phalarope	*Phalaropus fulicarius*	0.056
South Polar Skua	*Stercorarius maccormicki*	1.156
Pomarine Jaeger	*Stercorarius pomarinus*	0.694
Parasitic Jaeger	*Stercorarius parasiticus*	0.465
Long-tailed Jaeger	*Stercorarius longicaudus*	0.297
Glaucous Gull	*Larus hyperboreus*	1.413
Western Gull	*Larus occidentalis*	1.011
Glaucous-winged Gull	*Larus glaucescens*	1.01
Herring Gull	*Larus argentinus*	1
Thayer's Gull	*Larus thayeri*	0.996
Heermann's Gull	*Larus heermanni*	0.5
Bonaparte's Gull	*Larus philadelphia*	0.212
Mew Gull	*Larus canus*	0.404
Ring-billed Gull	*Larus delawarensis*	0.519
California Gull	*Larus californicus*	0.609
Sabine's Gull	*Xema sabini*	0.191
Black-legged Kittiwake	*Rissa tridactyla*	0.407
Red-legged Kittiwake	*Rissa brevirostris*	0.391
Arctic Tern	*Sterna paradisaea*	0.11
Common Tern	*Sterna hirundo*	0.12
Forster's Tern	*Sterna forsteri*	0.158
Caspian Tern	*Sterna caspia*	0.661
Elegant Tern	*Sterna elegans*	0.257
Royal Tern	*Sterna maxima*	0.47
Common Murre	*Uria aalge*	0.993
Thick-billed Murre	*Uria lomvia*	0.964
Pigeon Guillemot	*Cepphus columba*	0.487
Marbled Murrelet	*Brachyramphus marmoratus*	0.222
Ancient Murrelet	*Synthliboramphus antiquus*	0.206
Xantus's Murrelet	*Synthliboramphus hypoleucus*	0.159
Craveri's Murrelet	*Synthliboramphus craveri*	0.159
Parakeet Auklet	*Aethia psittacula*	0.318
Cassin's Auklet	*Ptychoramphus aleuticus*	0.188
Rhinoceros Auklet	*Cerorhinca monocerata*	0.52
Tufted Puffin	*Fratercula cirrhata*	0.779
Horned Puffin	*Fratercula corniculata*	0.619

From Dunning, J.B. 1993. Body Weights of 686 Species of North American Birds. International Wildlife Rehabilitation Council, University of Georgia, Athens, GA. 59 pp.

Appendix 3A. Leach's Storm-Petrel: pelagic maps of seasonal density, high use areas, and breeding colonies.

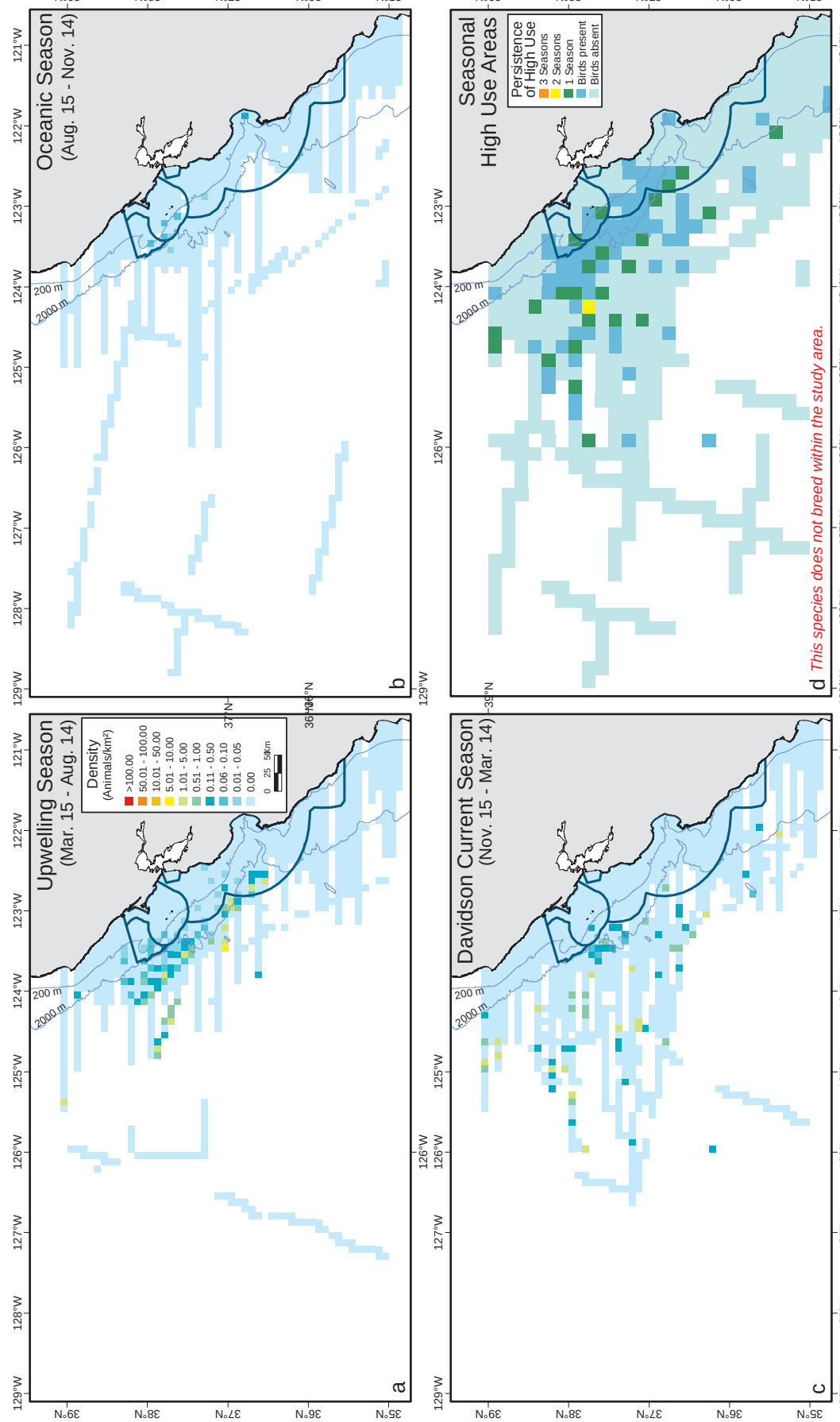
Leach's Storm-Petrel *Oceanodroma leucorhoa*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001), 2003. Colony data from Ainley and Lewis, 1974 and Carter et al.,1992.

Appendix 3B. Fork-tailed Storm-Petrel: pelagic maps of seasonal density and high use areas.

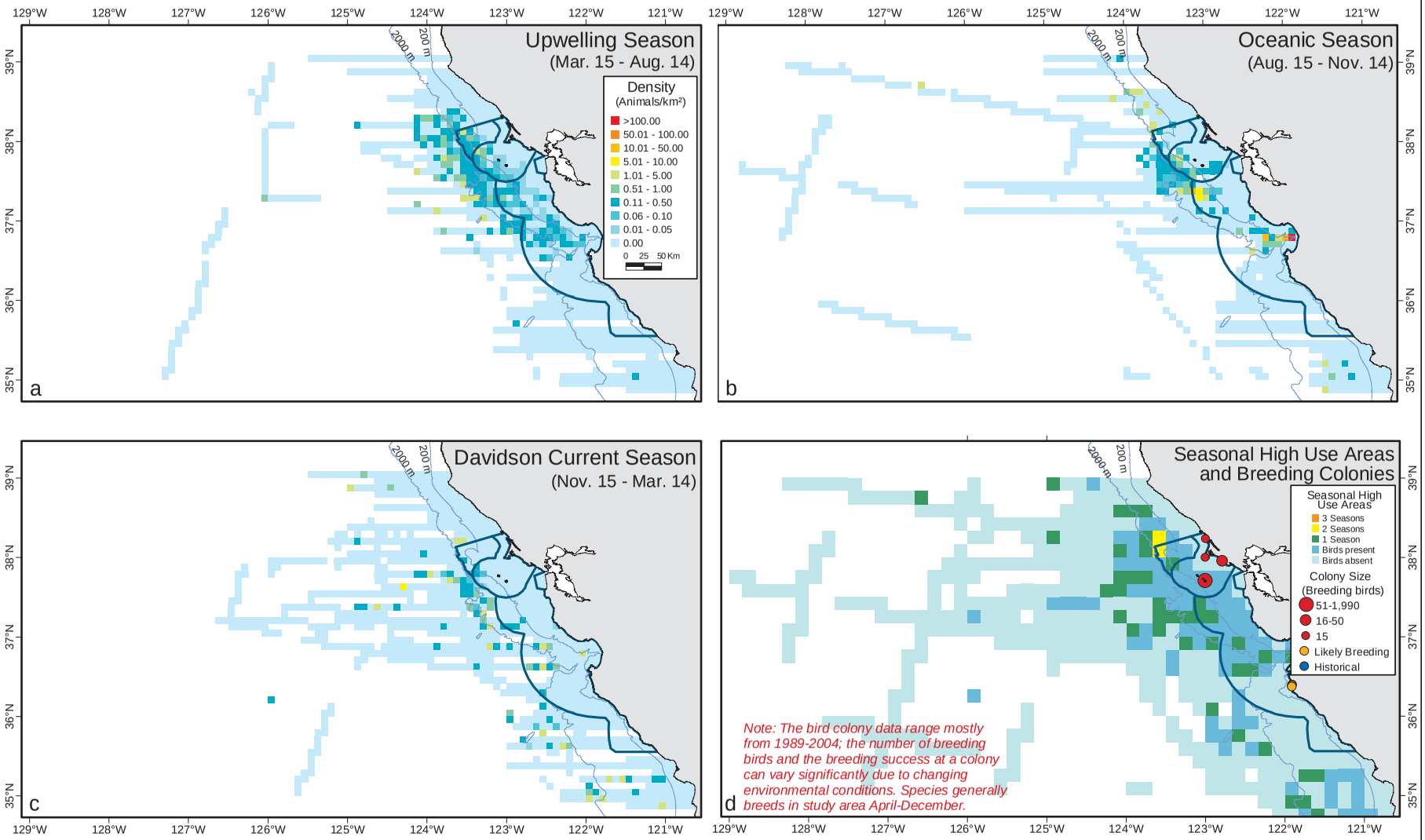
Fork-tailed Storm-Petrel *Oceanodroma furcata*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001), 2003.

Appendix 3C. Ashy Storm-Petrel: pelagic maps of seasonal density, high use areas, and breeding colonies.

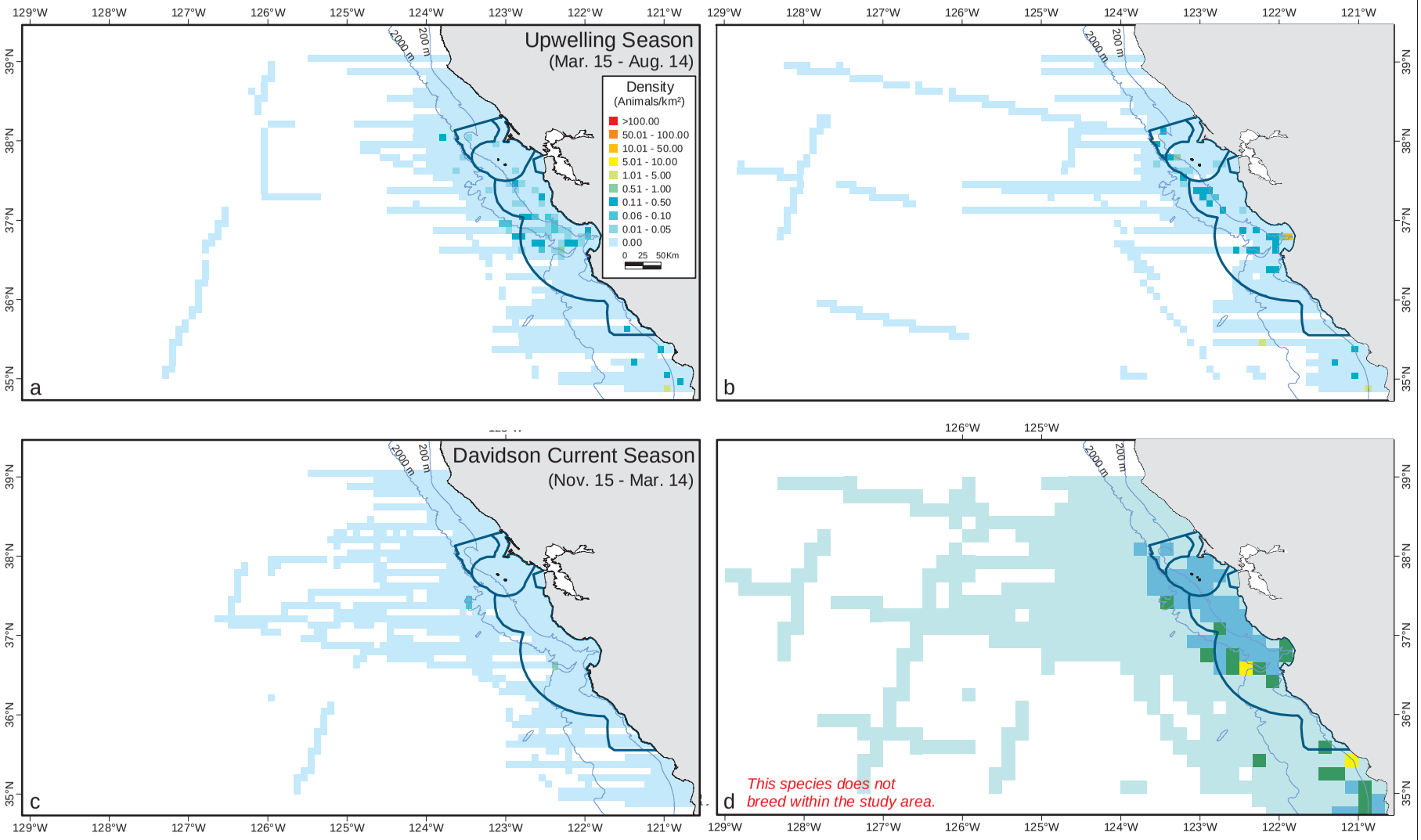
Ashy Storm-Petrel *Oceanodroma homochroa*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001), 2003. Colony data from: Whitworth et al. (2002), Sydeman et al. (1998), McChesney et al. (2000), and Carter et al. (1992).

Appendix 3D. Black Storm-Petrel: pelagic maps of seasonal density and high use areas.

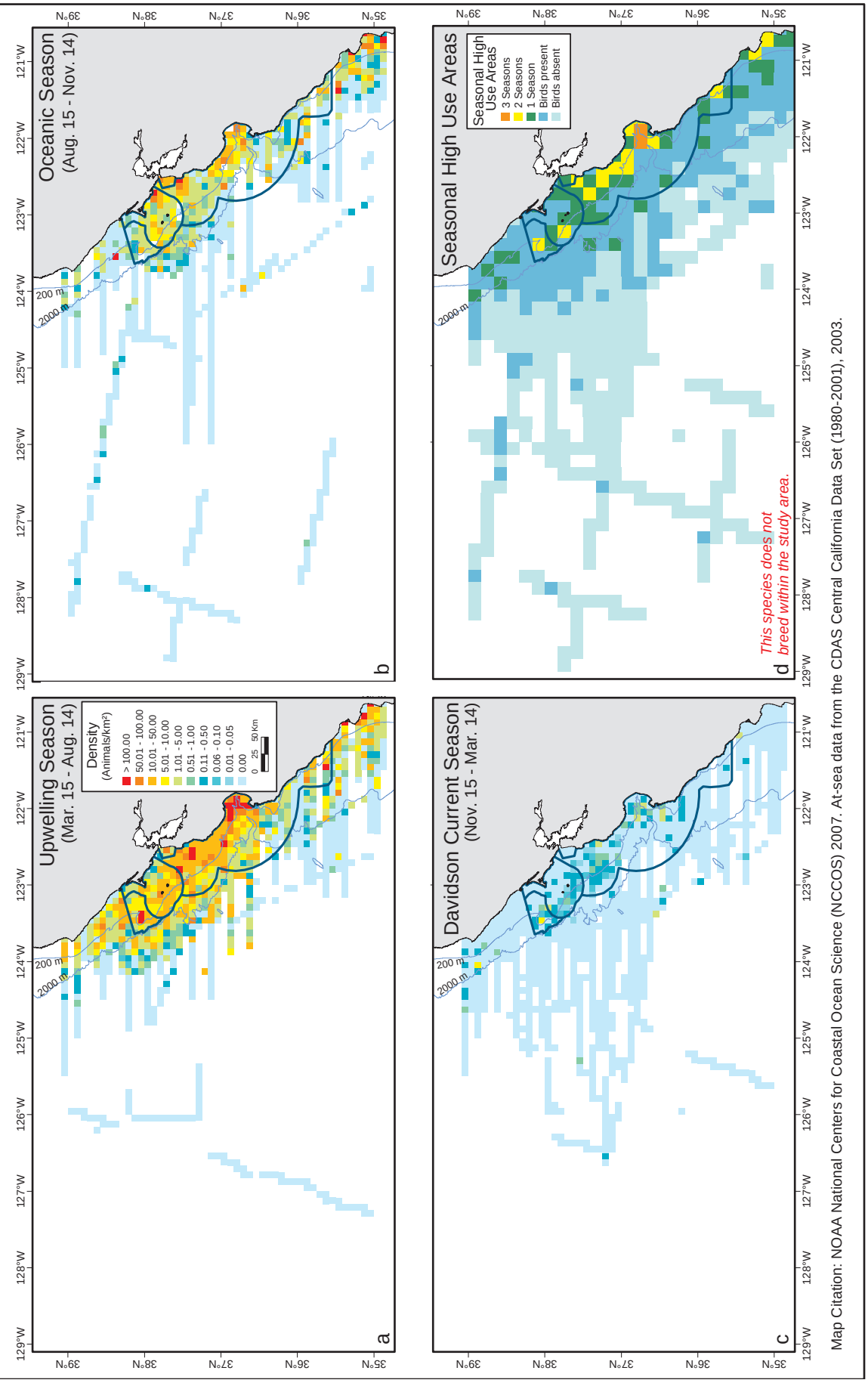
Black Storm-Petrel *Oceanodroma melania*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001), 2003.

Appendix 3E. Sooty Shearwater: pelagic maps of seasonal density and high use areas.

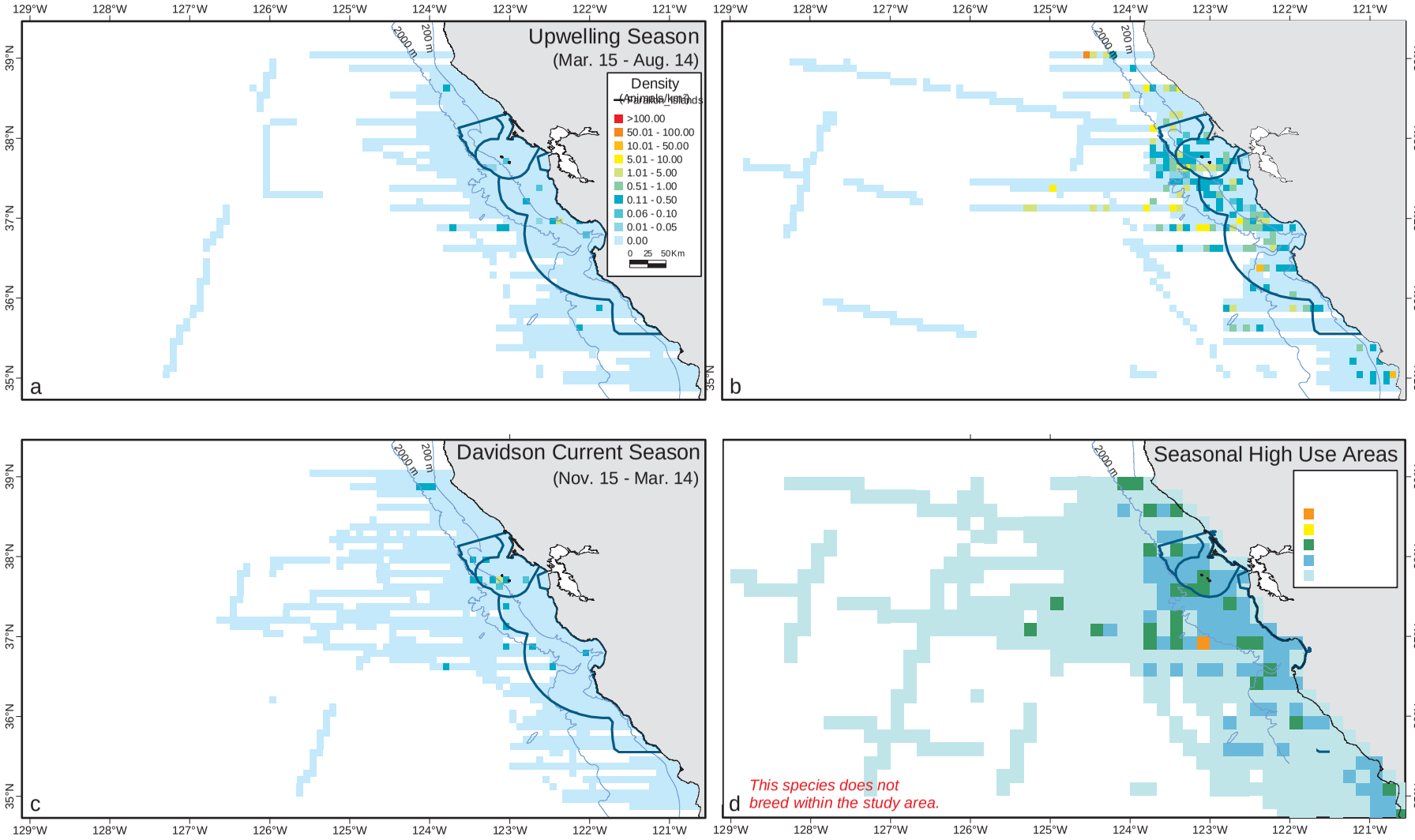
Sooty Shearwater *Puffinus griseus*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001), 2003.

Appendix 3F. Buller's Shearwater: pelagic maps of seasonal density and high use areas.

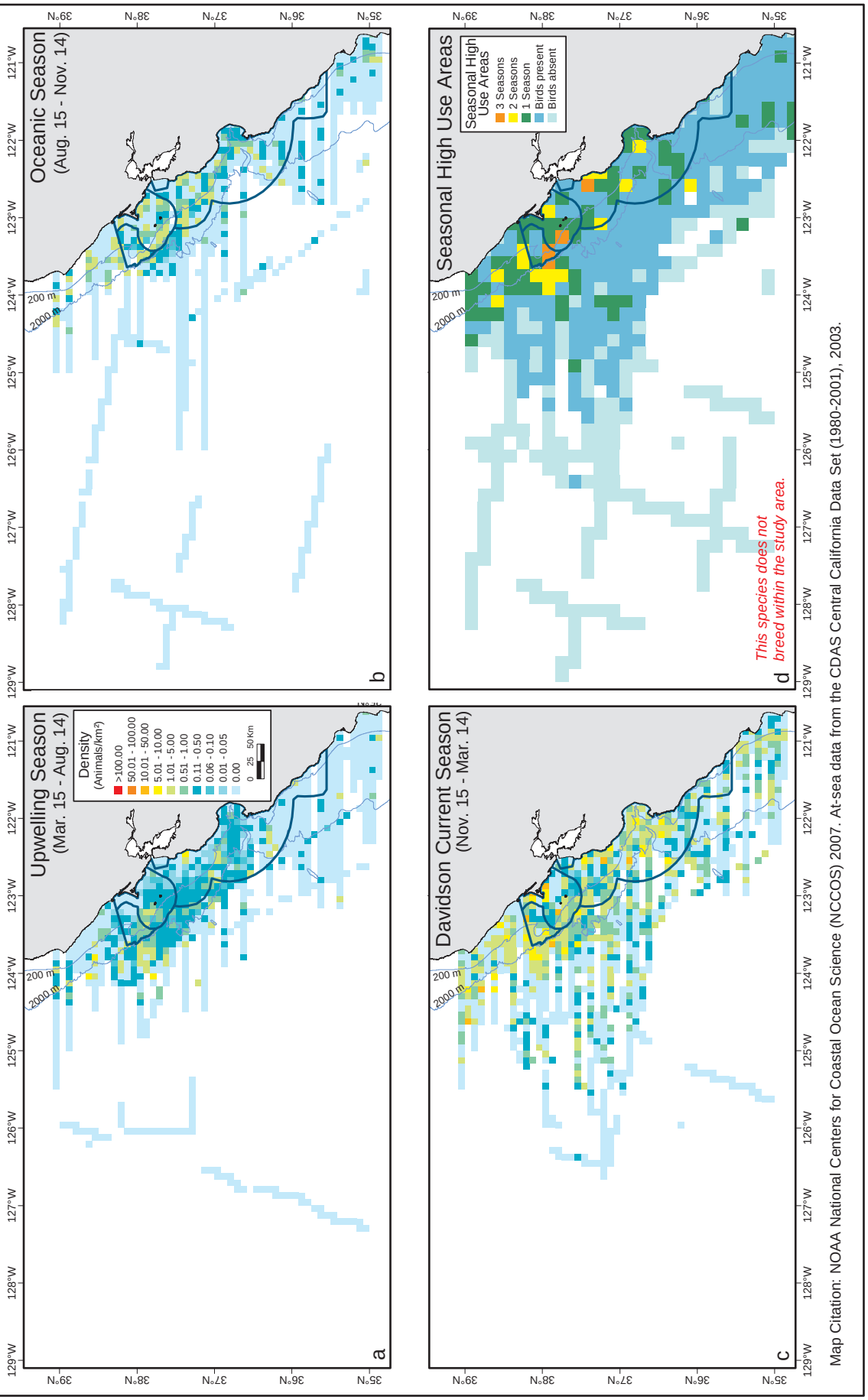
Buller's Shearwater *Puffinus bulleri*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001), 2003.

Appendix 3G. Northern Fulmar: pelagic maps of seasonal density and high use areas.

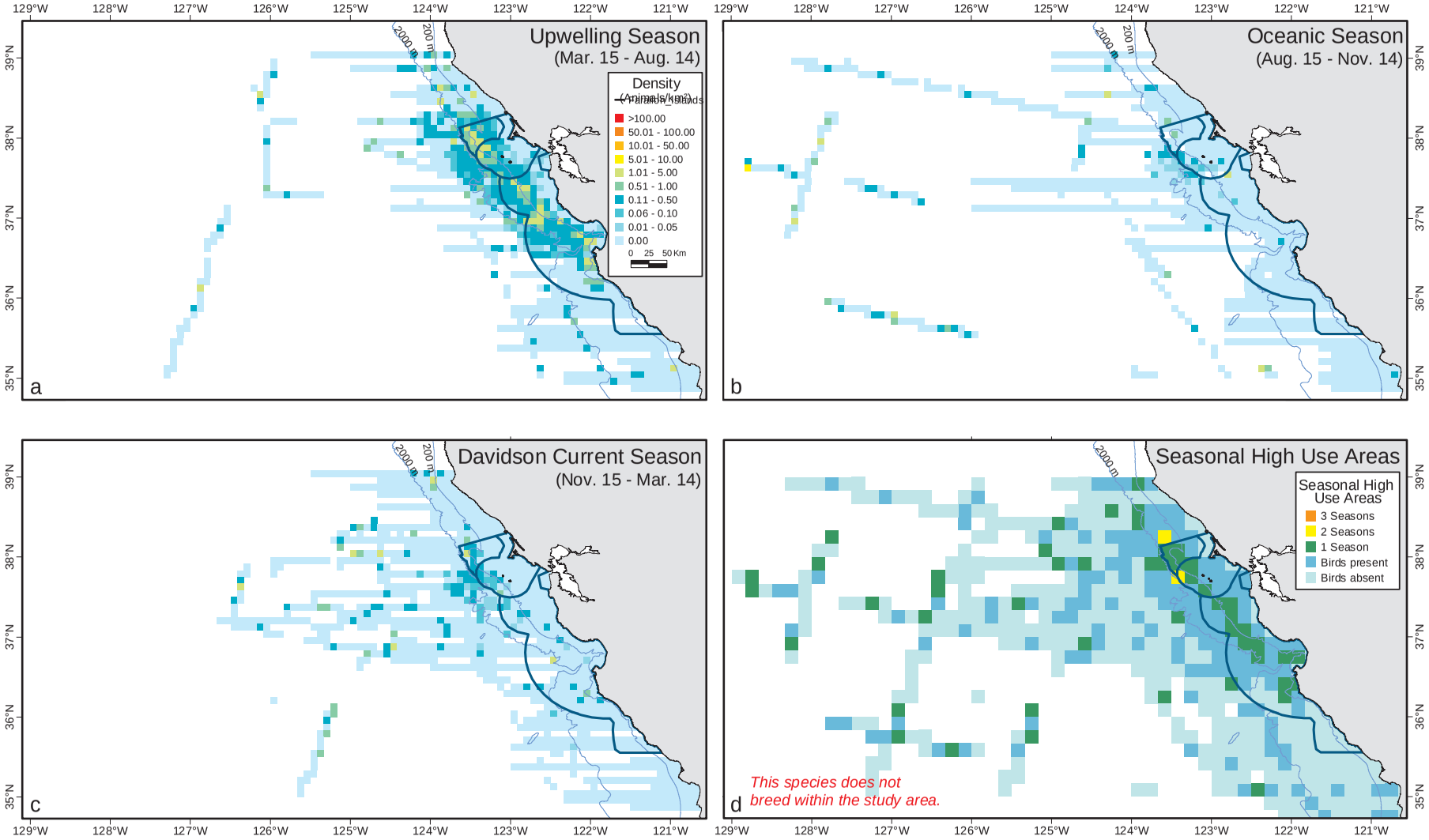
Northern Fulmar *Fulmarus glacialis*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001), 2003.

Appendix 3H. Black-footed Albatross: pelagic maps of seasonal density and high use areas.

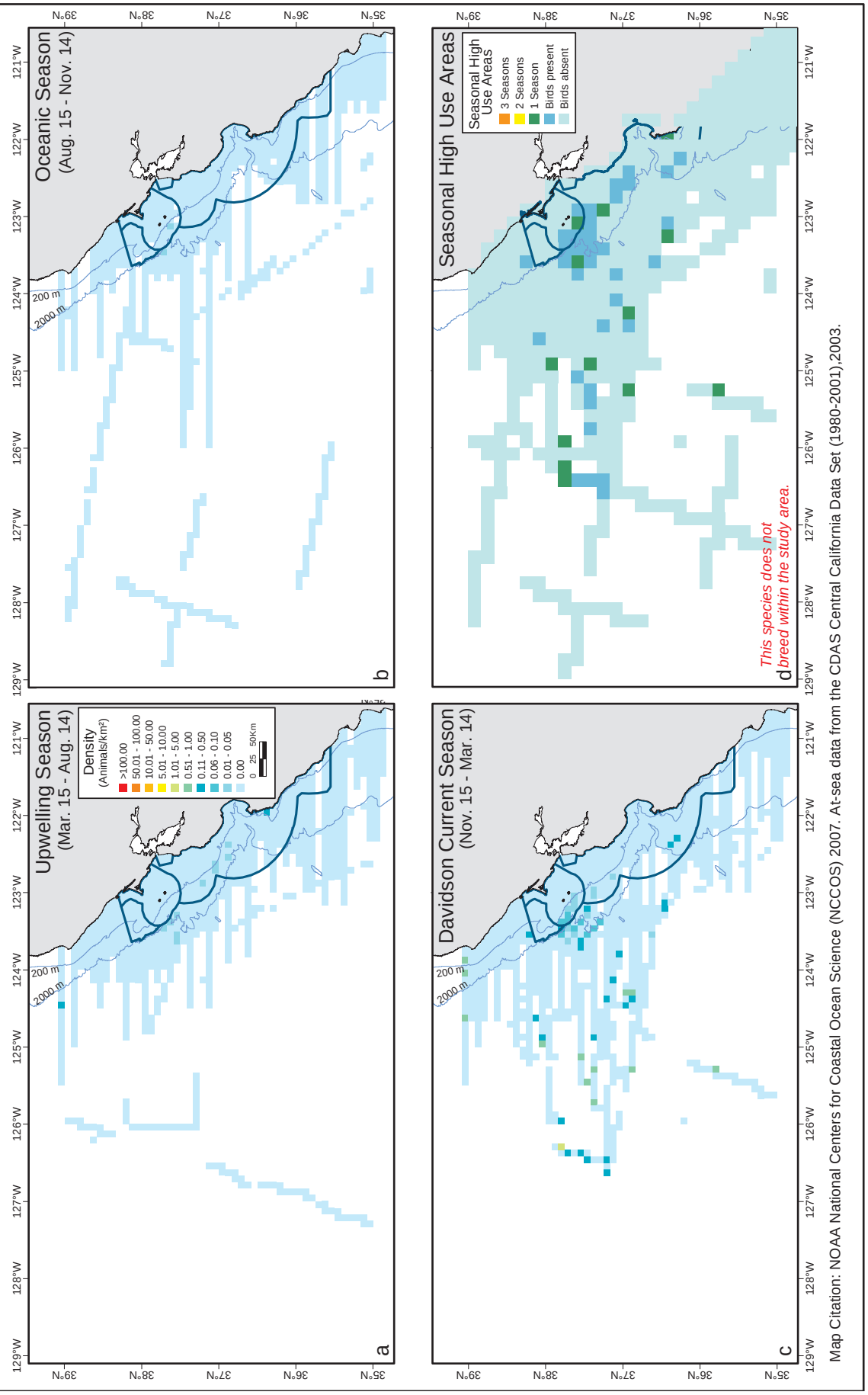
Black-footed Albatross *Phoebastria nigripes*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001), 2003.

Appendix 3J. Laysan Albatross: pelagic maps of seasonal density and high use areas.

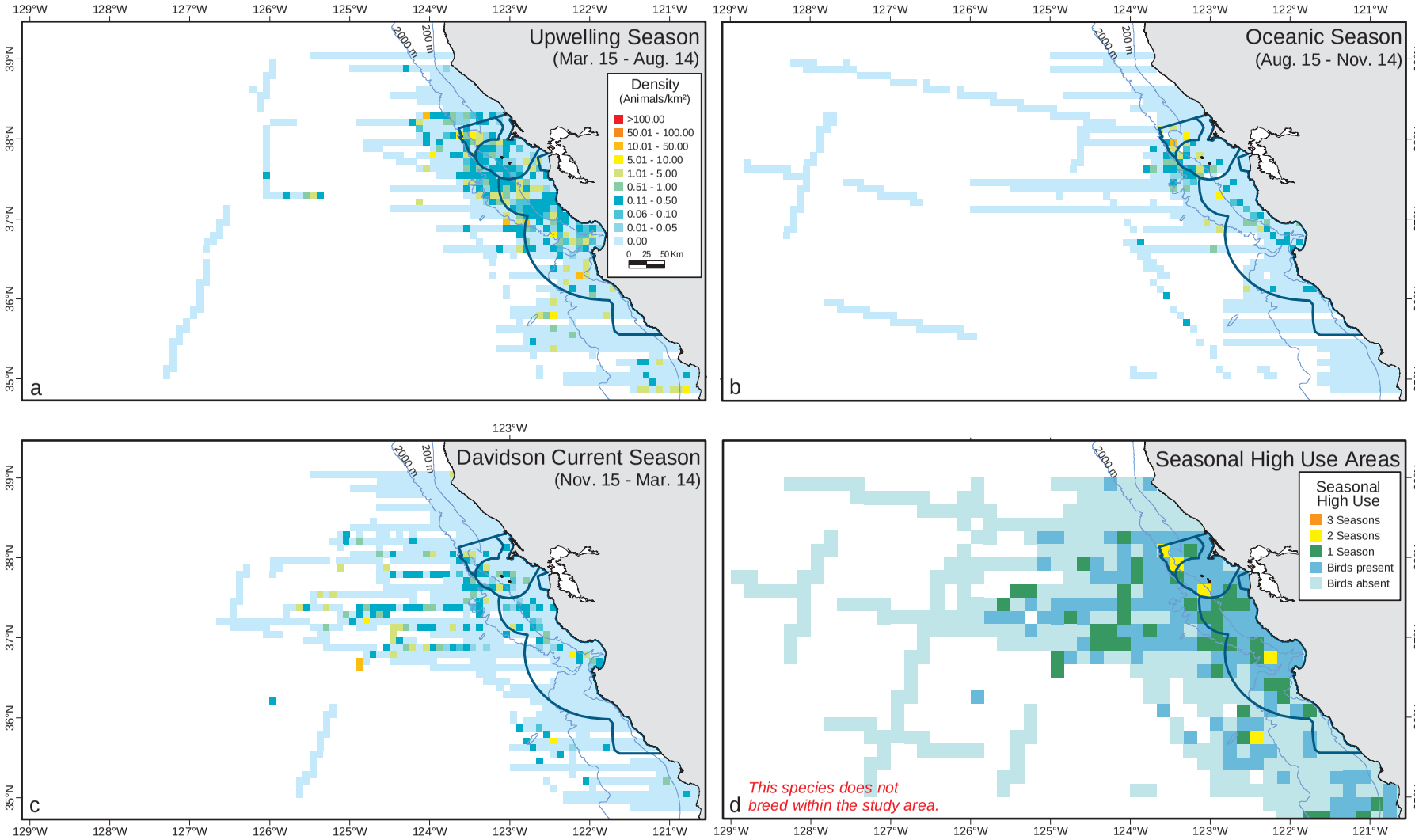
Laysan Albatross *Phoebastria immutabilis*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001),2003.

Appendix 3K. Red Phalarope: pelagic maps of seasonal density and high use areas.

Red Phalarope *Phalaropus fulicarius*



Map Citation: NOAA National Centers for Coastal Ocean Science (NCCOS) 2007. At-sea data from the CDAS Central California Data Set (1980-2001), 2003.