

Table 1. MSY/OFL Proxy (lb), Estimated Catch (lb), ACL Alternatives (in lb) and Probabilities of Overfishing (P*) CREMUS and Stock Complexes in American Samoa

	Selar crumenophthalmus-akule or bigeye scad	Acanthuridae-surgeonfishes	Carangidae-jacks	Carcharhinidae-reef sharks	Crustaceans-crabs	Holocentridae-squirrelfishes	Lethrinidae-emperors	Lutjanidae-snappers	Mollusks- turbo snail; octopus; giant clam	Mugilidae-mulletts	Scaridae-parrotfishes	Serranidae-groupers	Mullidae-goatfishes	Siganidae-rabbitfishes	Kyphosidae-rudderfishes	Labridae-wrasses	All other CREMUS combined
MSY	45,300	148,600	24,300	2,300	7,800	16,800	23,700	65,400	29,600	8,200	294,600	30,500	12,700	200	2,600	19,000	28,500
OFL Proxy	41,100 P*50%	142,500 P*50%	23,200 P*50%	2,300 P*50%	7,300 P*50%	16,600 P*50%	23,000 P*50%	66,900 P*50%	27,500 P*50%	7,600 P*50%	300,300 P*50%	29,500 P*50%	12,500 P*50%	200 P*50%	2,600 P*50%	18,100 P*50%	27,000 P*50%
2012 Catch	7,314	6,394	2,374	18	1,055	905	1,889	2,240	4,549	1,252	2,807	1,325	369	18	101	182	2,616
Ave. Catch (2010-2012)	2,484	16,238	2,317	33	6,434	1,931	4,977	6,959	5,581	1,398	9,171	2,399	329	34	349	332	3,731
Alternative 1 (Status Quo)	8,396 P* < 5%	19,516 P* < 5%	9,490 P* < 5%	1,309 P* = 25%	2,248 P* < 5%	2,585 P* < 5%	7,350 P* < 5%	18,839 P* < 5%	16,694 P* < 25%	2,857 P* < 15%	8,145 P* < 5%	5,600 P* < 5%	†	†	†	†	18,910 P* < 5%
Alternative 2 (ACL=ABC)	38,400 P* = 40%	133,800 P* = 40%	20,800 P* = 35%	?? P* = ??	4,700 P* = 30%	15,500 P* = 35%	20,400 P* = 35%	64,400 P* = 35%	20,200 P* = 35%	5,200 P* = 35%	280,100 P* = 35%	27,300 P* = 40%	12,000 P* = 35%	181 P* = 40%	2,200 P* = 35%	16,600 P* = 35%	20,300 P* = 35%
Alternative 3 (ACL Lower than ABC)	37,400 P* = 35%	129,400 P* = 35%	X	1,700 P* = 35%	X	X	X	X	X	X	X	26,300 P* = 35%	X	171 P* = 35%	X	X	X
	35,600 P* = 30%	125,000 P* = 30%	19,900 P* = 30%	1,500 P* = 30%	X	15,100 P* = 30%	19,600 P* = 30%	63,100 P* = 30%	18,400 P* = 30%	4,600 P* = 30%	272,000 P* = 30%	25,300 P* = 30%	11,900 P* = 30%	163 P* = 30%	2,000 P* = 30%	16,200 P* = 30%	18,400 P* = 30%
	35,000 P* = 25%	122,000 P* = 25%	19,300 P* = 25%	1,300 P* = 25%	4,300 P* = 25%	14,700 P* = 25%	18,600 P* = 25%	62,000 P* = 25%	16,800 P* = 25%	4,100 P* = 25%	268,000 P* = 25%	24,300 P* = 25%	11,700 P* = 25%	155 P* = 25%	1,900 P* = 25%	15,700 P* = 25%	16,800 P* = 25%
	34,200 P* = 20%	117,000 P* = 20%	18,200 P* = 20%	1,100 P* = 20%	3,800 P* = 20%	14,300 P* = 20%	17,800 P* = 20%	60,600 P* = 20%	15,200 P* = 20%	3,600 P* = 20%	260,000 P* = 20%	23,300 P* = 20%	11,400 P* = 20%	147 P* = 20%	1,700 P* = 20%	15,200 P* = 20%	15,200 P* = 20%
	33,300 P* = 15%	113,000 P* = 15%	17,000 P* = 15%	900 P* = 15%	3,300 P* = 15%	13,800 P* = 15%	16,900 P* = 15%	58,800 P* = 15%	13,600 P* = 15%	3,200 P* = 15%	249,000 P* = 15%	22,200 P* = 15%	11,200 P* = 15%	140 P* = 15%	1,600 P* = 15%	14,700 P* = 15%	13,700 P* = 15%
	32,500 P* = 10%	108,400 P* = 10%	15,800 P* = 10%	700 P* = 10%	2,800 P* = 10%	13,300 P* = 10%	15,800 P* = 10%	54,000 P* = 10%	11,900 P* = 10%	2,700 P* = 10%	240,800 P* = 10%	21,100 P* = 10%	10,900 P* = 10%	133 P* = 10%	1,400 P* = 10%	14,100 P* = 10%	12,100 P* = 10%
	31,800 P* = 5%	103,000 P* = 5%	14,000 P* = 5%	600 P* = 5%	2,300 P* = 5%	12,600 P* = 5%	14,600 P* = 5%	46,800 P* = 5%	10,000 P* = 5%	2,300 P* = 5%	232,000 P* = 5%	19,600 P* = 5%	10,700 P* = 5%	126 P* = 5%	1,200 P* = 5%	13,400 P* = 5%	10,200 P* = 5%

Source: Sabater and Kleiber (2013). Values based on outputs of the *k* revise B method.

Family Scaridae does not include *Bolbometopon muricatum* (bumphead parrotfish); Family Labridae does not include *Cheilinus undulatus* (humphead or Napoleon wrasse).

† - Previously part of the bottom 10%; no specific ACL for these families in 2012

Table 2. MSY/OFL Proxy (lb), Estimated Catch (lb), ACL Alternatives (in lb) and Probabilities of Overfishing (P*) CREMUS Stocks and Stock Complexes in CNMI

	Selar crumenophthalmus- akule or bigeye scad	Acanthuridae- surgeonfishes	Carangidae- jacks	Crustaceans- crabs	Holocentridae- squirrelfishes	Kyphosidae- rudderfishes	Labridae- wrasses	Lethrinidae- emperors	Lutjanidae- snappers	Mollusks- turbo snail; octopus; giant clam	Mugilidae- mulletts	Mullidae- goatfishes	Scaridae- parrotfishes	Serranidae- groupers	Siganidae- rabbitfishes	All other CREMUS combined
MSY	122,500	361,200	55,300	9,100	78,500	29,500	73,500	69,700	225,800	16,700	7,700	31,000	189,900	110,300	12,000	14,500
OFL Proxy	119,600 P*=50%	370,000 P*=50%	53,000 P*=50%	8,900 P*=50%	78,000 P*=50%	30,500 P*=50%	75,500 P*=50%	72,200 P*=50%	228,700 P*=50%	16,300 P*=50%	7,500 P*=50%	30,500 P*=50%	199,000 P*=50%	112,000 P*=50%	11,000 P*=50%	14,200 P*=50%
2012 Catch	14,245	1,369	5,738	0	1,082	163	313	22,116	1,027	5,620	720	964	1,732	6,260	2,577	7,711
Ave. Catch (2010-2012)	12,524	5,781	13,081	0	767	1,585	360	21,146	2,925	2,839	643	984	1,192	4,255	1,260	5,549
Alternative 1 (Status Quo)	7,459 P*<5%	6,884 P*<5%	21,512 P*<5%	†	†	†	†	27,466 P*<5%	3,905 P*<5%	4,446 P*<15%	3,308 P*<30%	3,670 P*<10%	3,784 P*<5%	5,519 P*<5%	2,537 P*<5%	9,820 P*<5%
Alternative 2 (ACL=ABC)	89,400 P*=40%	324,600 P*=40%	47,400 P*=40%	5,300 P*=35%	69,300 P*=35%	24,600 P*=35%	59,900 P*=35%	58,200 P*=35%	202,700 P*=40%	11,600 P*=40%	5,300 P*=40%	29,200 P*=40%	157,300 P*=35%	92,800 P*=35%	10,400 P*=35%	8,500 P*=35%
Alternative 3 (ACL Lower than ABC)	77,400 P*=35%	302,600 P*=35%	44,900 P*=35%						190,400 P*=35%	9,800 P*=35%	4,500 P*=35%	28,400 P*=35%				
	66,900 P*=30%	279,000 P*=30%	42,300 P*=30%	4,400 P*=30%	66,100 P*=30%	22,700 P*=30%	55,100 P*=30%	53,700 P*=30%	177,000 P*=30%	8,200 P*=30%	3,800 P*=30%	27,700 P*=30%	144,000 P*=30%	86,900 P*=30%	10,200 P*=30%	7,300 P*=30%
	58,200 P*=25%	258,000 P*=25%	39,800 P*=25%	3,700 P*=25%	63,100 P*=25%	20,800 P*=25%	50,200 P*=25%	49,200 P*=25%	164,000 P*=25%	6,900 P*=25%	3,200 P*=25%	26,800 P*=25%	129,000 P*=25%	80,400 P*=25%	9,300 P*=25%	6,200 P*=25%
	50,400 P*=20%	234,000 P*=20%	37,300 P*=20%	3,100 P*=20%	59,900 P*=20%	18,900 P*=20%	45,200 P*=20%	44,500 P*=20%	150,000 P*=20%	5,800 P*=20%	2,700 P*=20%	26,100 P*=20%	117,000 P*=20%	74,100 P*=20%	8,700 P*=20%	5,200 P*=20%
	43,600 P*=15%	211,000 P*=15%	34,800 P*=15%	2,600 P*=15%	56,700 P*=15%	17,000 P*=15%	40,400 P*=15%	39,700 P*=15%	137,000 P*=15%	4,800 P*=15%	2,300 P*=15%	25,500 P*=15%	103,000 P*=15%	67,300 P*=15%	8,400 P*=15%	4,400 P*=15%
	37,800 P*=10%	184,600 P*=10%	32,100 P*=10%	2,100 P*=10%	53,300 P*=10%	15,100 P*=10%	35,200 P*=10%	34,700 P*=10%	123,400 P*=10%	3,900 P*=10%	1,900 P*=10%	24,900 P*=10%	88,900 P*=10%	60,200 P*=10%	8,100 P*=10%	3,700 P*=10%
	32,800 P*=5%	158,000 P*=5%	28,700 P*=5%	1,600 P*=5%	48,900 P*=5%	12,900 P*=5%	29,400 P*=5%	29,700 P*=5%	107,000 P*=5%	3,000 P*=5%	1,500 P*=5%	24,400 P*=5%	72,500 P*=5%	51,800 P*=5%	7,800 P*=5%	2,800 P*=5%

Source: Sabater and Kleiber (2013). Values based on outputs of the *k* revise B method.

† Catch for this species is included in “All other CREMUS combined.”

Family Scaridae does not include *Bolbometopon muricatum* (bumphead parrotfish); Family Labridae does not include *Cheilinus undulatus* (humphead or Napoleon wrasse).

Table 3. MSY/OFL Proxy (lb), Estimated Catch (lb), ACL Alternatives (in lb) and Probabilities of Overfishing (P*) CREMUS Stocks and Stock Complexes in Guam

	Selar crumenophthalmus- akule or bigeye sead	Acanthuridae- surgeonfishes	Algae	Carangidae- jacks	Carcharhinidae- reef sharks	Crustaceans- crabs	Holocentridae- squirrelfishes	Kyphosidae- rudderfishes	Labridae- wrasses	Lethrinidae- emperors	Lutjanidae- snappers	Mollusks- octopus	Mugilidae- mulletts	Mullidae- goatfishes	Scaridae- parrotfishes	Serranidae- groupers	Siganidae- rabbitfishes	All other CREMUS combined
MSY	61,300	118,000	7,600	31,700	2,900	8,600	13,900	10,300	28,500	78,000	21,800	29,000	26,200	16,400	87,100	28,600	19,700	211,300
OFL Proxy	60,800 P*=50%	114,700 P*=50%	7,800 P*=50%	32,200 P*=50%	2,900 P*=50%	8,600 P*=50%	13,800 P*=50%	10,300 P*=50%	28,200 P*=50%	76,600 P*=50%	20,700 P*=50%	28,600 P*=50%	24,500 P*=50%	16,300 P*=50%	86,500 P*=50%	27,400 P*=50%	19,700 P*=50%	209,200 P*=50%
2012 Catch	120,513	6,083	61	18,122	1,761	2,453	1,956	1,608	590	18,425	8,410	8,463	16,441	6,761	6,673	4,971	2,843	35,237
Ave. Catch (2010-2012)	87,215	6,923	110	21,779	1,062	1,080	1,290	3,793	864	17,563	7,268	5,554	7,825	5,273	6,923	6,644	5,179	30,677
Alternative 1 (Status Quo)	56,514 P*<10%	70,702 P*<40%	5,329 P*<5%	45,377 P*>50%	6,942 P*>50%	5,523 P*<5%	8,300 P*<5%	13,247 P*>50%	5,195 P*<5%	38,720 P*<15%	17,726 P*<25%	21,941 P*<15%	15,032 P*<20%	25,367 P*>50%	28,649 P*<5%	17,958 P*<15%	26,120 P*>50%	83,214 P*<5%
Alternative 2 (ACL=ABC)	52,300 P*=30%	101,700 P*=35%	7,100 P*=35%	29,900 P*=30%	?? P*=??	7,600 P*=35%	12,000 P*=35%	9,800 P*=35%	25,800 P*=35%	58,000 P*=35%	18,600 P*=35%	25,000 P*=35%	19,400 P*=35%	15,600 P*=40%	75,000 P*=35%	23,700 P*=35%	19,500 P*=40%	191,300 P*=35%
Alternative 3 (ACL Lower than ABC)					2,200 P*=35%									15,300 P*=35%			19,200 P*=35%	
		97,600 P*=30%	6,900 P*=30%		2,000 P*=30%	7,300 P*=30%	11,400 P*=30%	9,600 P*=30%	25,200 P*=30%	53,000 P*=30%	18,000 P*=30%	23,800 P*=30%	17,900 P*=30%	15,100 P*=30%	71,600 P*=30%	22,500 P*=30%	19,100 P*=30%	185,000 P*=30%
	50,200 P*=25%	93,500 P*=25%	6,600 P*=25%	29,300 P*=25%	1,800 P*=25%	7,000 P*=25%	10,800 P*=25%	9,400 P*=25%	24,700 P*=25%	48,000 P*=25%	17,400 P*=25%	22,700 P*=25%	16,600 P*=25%	14,800 P*=25%	68,100 P*=25%	21,400 P*=25%	19,000 P*=25%	179,000 P*=25%
	47,900 P*=20%	90,100 P*=20%	6,400 P*=20%	28,600 P*=20%	1,600 P*=20%	6,600 P*=20%	10,200 P*=20%	9,100 P*=20%	24,500 P*=20%	43,700 P*=20%	16,800 P*=20%	21,600 P*=20%	15,400 P*=20%	14,300 P*=20%	64,600 P*=20%	20,300 P*=20%	18,900 P*=20%	173,000 P*=20%
	45,500 P*=15%	86,200 P*=15%	6,100 P*=15%	27,800 P*=15%	1,400 P*=15%	6,200 P*=15%	9,600 P*=15%	8,900 P*=15%	24,100 P*=15%	39,800 P*=15%	16,100 P*=15%	20,400 P*=15%	14,100 P*=15%	14,000 P*=15%	60,600 P*=15%	19,100 P*=15%	18,700 P*=15%	166,000 P*=15%
	42,800 P*=10%	81,100 P*=10%	5,700 P*=10%	26,800 P*=10%	1,200 P*=10%	5,800 P*=10%	9,000 P*=10%	8,500 P*=10%	23,800 P*=10%	36,200 P*=10%	15,400 P*=10%	19,200 P*=10%	12,700 P*=10%	13,600 P*=10%	56,200 P*=10%	17,900 P*=10%	18,600 P*=10%	159,000 P*=10%
	39,300 P*=5%	74,500 P*=5%	5,300 P*=5%	25,200 P*=5%	1,000 P*=5%	5,200 P*=5%	8,200 P*=5%	8,100 P*=5%	23,200 P*=5%	31,500 P*=5%	14,400 P*=5%	17,600 P*=5%	11,000 P*=5%	13,200 P*=5%	51,100 P*=5%	16,400 P*=5%	18,300 P*=5%	150,000 P*=5%

Source: Sabater and Kleiber (2013). Values based on outputs of the *k* revise B method.

† Catch for this species is included in “All other CREMUS combined.”

Family Scaridae does not include *Bolbometopon muricatum* (bumphead parrotfish); Family Labridae does not include *Cheilinus undulatus* (humphead or Napoleon wrasse).

Table 4. MSY/OFL Proxy (lb), Estimated Catch (lb), ACL Alternatives (in lb) and Probabilities of Overfishing (P*) CREMUS Stocks and Stock Complexes in Hawaii

	Selar crumenophthalmus- akule or bigeye scad	Decapterus macarellus- opelu or mackerel scad	Acanthuridae- surgeonfishes	Carangidae- jacks	Carcharhinidae- reef sharks	Crustaceans- crabs	Holocentridae- squirrelfishes	Kyphosidae- rudderfishes	Labridae- wrasses	Lethrinidae- emperors	Lutjanidae- snappers	Mollusks- octopus	Mugilidae- mullets	Mullidae- goatfishes	Scaridae- parrotfishes	Serranidae- groupers	All other CREMUS combined
MSY	1,150,800	538,000	445,500	185,100	12,400	43,100	159,800	122,800	229,200	39,600	359,300	50,300	24,600	195,700	271,500	141,300	540,800
OFL Proxy	1,138,000 P*=50%	531,200 P*=50%	452,600 P*=50%	183,700 P*=50%	12,500 P*=50%	42,800 P*=50%	158,100 P*=50%	119,600 P*=50%	227,400 P*=50%	39,400 P*=50%	356,200 P*=50%	49,500 P*=50%	24,500 P*=50%	197,500 P*=50%	270,600 P*=50%	139,900 P*=50%	535,600 P*=50%
2012 Catch	279,842	246,223	133,280	50,301	0	21,093	54,541	26,610	7,438	4,994	39,411	38,831	8,793	54,011	84,211	5,040	58,825
Ave. Catch (2010-2012)	396,667	296,800	124,928	43,795	2,467	30,380	70,314	27,511	7,706	6,599	44,962	37,760	10,677	65,317	72,334	5,094	49,399
Alternative 1 (Status Quo)	651,292 P*<5%	393,536 P*<20%	80,545 P*<5%	193,423 P*>50%	111,566 P*>50%	20,686 P*<5%	44,122 P*<5%	†	†	†	65,102 P*<5%	28,765 P*<10%	41,112 P*<40%	125,813 P*<10%	33,326 P*<5%	†	142,282 P*<5%
Alternative 2 (ACL=ABC)	1,025,000 P*=35%	459,800 P*=35%	367,900 P*=35%	168,100 P*=40%	?? P*=??	35,400 P*=30%	150,000 P*=30%	108,600 P*=35%	211,000 P*=35%	36,600 P*=35%	338,200 P*=40%	38,200 P*=30%	20,100 P*=30%	173,100 P*=35%	251,700 P*=35%	132,200 P*=40%	496,500 P*=35%
Alternative 3 (ACL Lower than ABC)				161,200 (P*=35%)	9,800 (P*=35%)						330,300 (P*=35%)					128,400 (P*=35%)	
	988,000 P*=30%	438,000 P*=30%	342,000 P*=30%	154,000 P*=30%	8,800 P*=30%			105,000 P*=30%	205,000 P*=30%	35,500 P*=30%	321,000 P*=30%			165,000 P*=30%	246,000 P*=30%	125,000 P*=30%	485,000 P*=30%
	952,000 P*=25%	418,000 P*=25%	313,000 P*=25%	146,000 P*=25%	8,000 P*=25%	33,500 P*=25%	148,000 P*=25%	101,000 P*=25%	200,000 P*=25%	34,300 P*=25%	312,000 P*=25%	35,700 P*=25%	19,200 P*=25%	157,000 P*=25%	239,000 P*=25%	121,000 P*=25%	471,000 P*=25%
	919,000 P*=20%	400,000 P*=20%	288,000 P*=20%	139,000 P*=20%	7,200 P*=20%	31,400 P*=20%	146,000 P*=20%	98,100 P*=20%	194,000 P*=20%	33,200 P*=20%	303,000 P*=20%	33,400 P*=20%	18,200 P*=20%	148,000 P*=20%	232,000 P*=20%	116,000 P*=20%	457,000 P*=20%
	886,000 P*=15%	381,000 P*=15%	259,000 P*=15%	131,000 P*=15%	6,300 P*=15%	29,100 P*=15%	144,000 P*=15%	94,500 P*=15%	188,000 P*=15%	32,100 P*=15%	292,000 P*=15%	31,300 P*=15%	17,100 P*=15%	138,000 P*=15%	223,000 P*=15%	111,000 P*=15%	440,000 P*=15%
	850,600 P*=10%	363,300 P*=10%	231,100 P*=10%	123,300 P*=10%	5,400 P*=10%	26,600 P*=10%	140,600 P*=10%	90,500 P*=10%	181,000 P*=10%	31,000 P*=10%	280,500 P*=10%	29,200 P*=10%	15,900 P*=10%	128,300 P*=10%	213,400 P*=10%	106,000 P*=10%	424,200 P*=10%
	807,000 P*=5%	346,000 P*=5%	196,000 P*=5%	114,000 P*=5%	4,300 P*=5%	23,900 P*=5%	138,000 P*=5%	86,000 P*=5%	175,000 P*=5%	29,400 P*=5%	264,000 P*=5%	26,600 P*=5%	14,300 P*=5%	116,000 P*=5%	201,000 P*=5%	98,700 P*=5%	405,000 P*=5%

Source: Sabater and Kleiber (2013). Values based on outputs of the *k* revise B method.

† Catch for this species is included in “All other CREMUS combined.”

Family Scaridae does not include *Bolbometopon muricatum* (bumphead parrotfish); Family Labridae does not include *Cheilinus undulatus* (humphead or Napoleon wrasse).

Carangidae includes the BMUS, kahala (*Seriola dumerili*) since this species is not included in NMFS bottomfish stock assessments, and is a reef-associated species.

Lutjanidae includes BMUS, taape (*Lutjanus kasmira*) since this species is not included in NMFS bottomfish stock assessments, and is a reef-associated species.