Supplementary material

Long-term monitoring informs data-poor marine species in the northern Gulf of Mexico

Stephen R. Midway^{A,C}, Kenneth A. Erickson^A, Michael D. Kaller^B and William Kelso^B

^ADepartment of Oceanography and Coastal Sciences, Louisiana State University, Baton Rouge, LA 70803, USA.

^BSchool of Renewable Natural Resources, Louisiana State University Agricultural Center, Baton Rouge, LA 70803, USA.

^cCorresponding author. Email: smidway@lsu.edu

Supplementary tables

Notes pertaining to all tables:

- Some coastal basins, such as the Mermentau, Sabine, and Pearl, were excluded because there were not sampled over the majority of the sampling period (1986–2017) likely due to changes to sampling locations over the time span of the sampling program.
- 2) 2018 was excluded from all samples because it was an incomplete year; i.e. only complete sampling years are included in the below tables.
- 3) The bars and colors are largely used to visually convey trends. Bars and color densities are scaled to only the table in which they are found; i.e. do not compare bars or colors among tables, although the actual numbers are comparable.
- 4) The tables do not provide any species-specific information; all Louisiana marine SGCN are included in searching the data (although some of them were never sampled).
- 5) Effort included all gears reported in the data. Although the study focused more in trawl and seine-selected species, the below tables include a wider variety of gears. Despite this potentially larger number of gear we permitted here, trawls and seines still make up the vast majority of all samples and as such, the numbers and trends in the tables are consistent with the data used in other analyses in the study.

Table S1. Atchafalaya Basin

The year, species of greatest conservation need (SGCN) species richness, total SGCN fish sampled, effort and CPUE aggregated for annual sampling in the Atchafalaya basin. SGCN Richness and Total Fish Sampled are integer counts. Effort is generically defined as sampling event (because it includes multiple gear), and CPUE is simply the total fish sampled divided by the effort

Year	SGCN Richness	Total Fish Sampled	Effort	CPUE
1986	1	1	471	0.0021
1987	o	o	247	0.0000
1988	o	o	170	0.0000
1989	o	o	210	0.0000
1990	o	o	550	0.0000
1991	o	o	411	0.0000
1992	o	o	402	0.0000
1993	o	o	441	0.0000
1994	2	4	368	0.0109
1995	1	2	474	0.0042
1996	o	o	248	0.0000
1997	1	1	246	0.0041
1998	1	4	388	0.0103
1999	2	2	320	0.0063
2000	o	o	395	0.0000
2001	1	2	288	0.0069
2002	1	3	250	0.0120
2003	1	4	328	0.0122
2004	o	o	319	0.0000
2005	2	2	322	0.0062
2006	2	3	399	0.0075
2007	1	1	382	0.0026
2008	2	2	336	0.0060
2009	1	2	327	0.0061
2010	1	1	345	0.0029
2011	2	2	458	0.0044
2012	2	2	415	0.0048
2013	0	o	114	0.0000
2014	0	o	51	0.0000
2015	1	1	57	0.0175
2016	1	1	62	0.0161
2017	0	o	56	0.0000

Table S2Barataria Basin

The year, species of greatest conservation need (SGCN) species richness, total SGCN fish sampled, effort and CPUE aggregated for annual sampling in the Barataria basin. SGCN Richness and Total Fish Sampled are integer counts. Effort is generically defined as sampling event (because it includes multiple gear), and CPUE is simply the total fish sampled divided by the effort

Year	SGCN Richness	Total Fish Sampled	Effort	CPUE
1986	4	926	4048	0.2288
1987	4	387	3278	0.1181
1988	2	70	2447	0.0286
1989	1	1	1751	0.0006
1990	2	9	2126	0.0042
1991	3	13	2409	0.0054
1992	3	7	1982	0.0035
1993	3	25	1994	0.0125
1994	3	38	1806	0.0210
1995	2	36	1909	0.0189
1996	5	99	2047	0.0484
1997	4	10	2218	0.0045
1998	4	63	4411	0.0143
1999	5	57	4495	0.0127
2000	2	55	4276	0.0129
2001	4	43	4019	0.0107
2002	3	25	4425	0.0056
2003	3	32	4310	0.0074
2004	5	42	4128	0.0102
2005	2	69	4256	0.0162
2006	3	97	4373	0.0222
2007	4	159	4219	0.0377
2008	5	99	4209	0.0235
2009	4	60	4368	0.0137
2010	3	51	4128	0.0124
2011	4	25	5927	0.0042
2012	5	20	6295	0.0032
2013	6	78	4846	0.0161
2014	4	64	4065	0.0157
2015	4	59	5323	0.0111
2016	5	493	6202	0.0795
2017	6	478	6303	0.0758

Table S3.Calcasieu Basin

The year, species of greatest conservation need (SGCN) species richness, total SGCN fish sampled, effort and CPUE aggregated for annual sampling in the Calcasieu basin. SGCN Richness and Total Fish Sampled are integer counts. Effort is generically defined as sampling event (because it includes multiple gear), and CPUE is simply the total fish sampled divided by the effort

			CPUE
1986 3	335	2492	0.1344
1987 2	256	2381	0.1075
1988 3	79	2105	0.0375
1989 2	4	2012	0.0020
1990 3	17	2195	0.0077
1991 3	131	2497	0.0525
1992 3	71	2531	0.0281
1993 3	88	2499	0.0352
1994 2	3	2145	0.0014
1995 4	32	2455	0.0130
1996 3	29	2690	0.0108
1997 4	9	2557	0.0035
1998 2	41	2442	0.0168
1999 2	20	2424	0.0083
2000 2	9	2359	0.0038
2001 2	15	2162	0.0069
2002 3	13	2012	0.0065
2003 5	22	2351	0.0094
2004 3	12	2450	0.0049
2005 2	8	2507	0.0032
2006 4	32	2786	0.0115
2007 3	1	2674	0.0026
2008 3	21	2753	0.0076
2009 2	9	2505	0.0036
2010 2	60	2241	0.0268
2011 2	7	2685	0.0026
2012 2	5	2628	0.0019
2013 1	2	1885	0.0011
2014 3	6	1719	0.0035
2015 3	4	1956	0.0020
2016 3	4	2093	0.0019
2017 3	23	1825	0.0126

Table S4.Pontchartrain Basin

The year, species of greatest conservation need (SGCN) species richness, total SGCN fish sampled, effort and CPUE aggregated for annual sampling in the Pontchartrain basin. SGCN Richness and Total Fish Sampled are integer counts. Effort is generically defined as sampling event (because it includes multiple gear), and CPUE is simply the total fish sampled divided by the effort

Year	SGCN Richness	Total Fish Sampled	Effort	CPUE
1986	5	1173	2440	0.4807
1987	5	1565	3172	0.4934
1988	6	520	4377	0.1188
1989	6	629	4333	0.1452
1990	6	1200	4633	0.2590
1991	6	874	4536	0.1927
1992	4	118	4096	0.0288
1993	6	99	4773	0.0207
1994	5	47	4188	0.0112
1995	6	208	4114	0.0506
1996	4	34	4157	0.0082
1997	4	22	4351	0.0051
1998	5	38	4084	0.0093
1999	5	697	4166	0.1673
2000	5	216	5127	0.0421
2001	5	73	5879	0.0124
2002	5	110	6259	0.0176
2003	5	82	5205	0.0158
2004	4	388	5021	0.0773
2005	4	166	4869	0.0341
2006	4	49	5837	0.0084
2007	5	45	5523	0.0081
2008	3	44	6410	0.0069
2009	5	39	6270	0.0062
2010	6	31	6460	0.0048
2011	3	18	7798	0.0023
2012	3	31	7963	0.0039
2013	4	24	5299	0.0045
2014	1	17	4151	0.0041
2015	5	47	4717	0.0100
2016	4	47	4966	0.0095
2017	5	563	5227	0.1077

Table S5.Terrebonne Basin

The year, species of greatest conservation need (SGCN) species richness, total SGCN fish sampled, effort and CPUE aggregated for annual sampling in the Terrebonne basin. SGCN Richness and Total Fish Sampled are integer counts. Effort is generically defined as sampling event (because it includes multiple gear), and CPUE is simply the total fish sampled divided by the effort

Year	SGCN Richness	Total Fish Sampled	Effort	CPUE
1986	3	52	6047	0.0086
1987	4	329	6168	0.0533
1988	4	110	6128	0.0180
1989	4	879	5924	0.1484
1990	6	690	5910	0.1168
1991	6	605	6864	0.0881
1992	5	90	6600	0.0136
1993	6	365	7052	0.0518
1994	5	562	6936	0.0810
1995	6	1418	7284	0.1947
1996	6	609	6283	0.0969
1997	7	180	6237	0.0289
1998	5	147	6223	0.0236
1999	8	268	6857	0.0391
2000	7	566	6564	0.0862
2001	6	166	6095	0.0272
2002	6	148	6020	0.0246
2003	5	389	6042	0.0644
2004	6	432	5941	0.0727
2005	7	245	6660	0.0368
2006	8	364	7047	0.0517
2007	6	489	6539	0.0748
2008	6	129	6226	0.0207
2009	6	96	6536	0.0147
2010	8	169	5599	0.0302
2011	7	83	9038	0.0092
2012	5	26	8592	0.0030
2013	3	36	5278	0.0068
2014	5	87	4285	0.0203
2015	5	53	4644	0.0114
2016	6	272	4902	0.0555
2017	6	549	4798	0.1144

Table S6. Vermilion-Teche Basin

The year, species of greatest conservation need (SGCN) species richness, total SGCN fish sampled, effort and CPUE aggregated for annual sampling in the Vermilion-Teche basin. SGCN Richness and Total Fish Sampled are integer counts. Effort is generically defined as sampling event (because it includes multiple gear), and CPUE is simply the total fish sampled divided by the effort

Year	SGCN Richness	Total Fish Sampled	Effort	CPUE
1986	4	170	2912	0.0584
1987	4	51	2430	0.0210
1988	3	32	2545	0.0126
1989	3	44	2433	0.0181
1990	3	8	2983	0.0027
1991	3	22	2827	0.0078
1992	1	2	2758	0.0007
1993	3	34	2455	0.0138
1994	4	35	3293	0.0106
1995	4	61	3798	0.0161
1996	5	46	3840	0.0120
1997	4	320	3333	0.0960
1998	6	293	3745	0.0782
1999	4	167	3401	0.0491
2000	4	168	3476	0.0483
2001	4	90	3125	0.0288
2002	3	44	2900	0.0152
2003	3	37	2994	0.0124
2004	3	33	3213	0.0103
2005	5	49	3290	0.0149
2006	4	89	3582	0.0248
2007	3	114	3561	0.0320
2008	3	71	3388	0.0210
2009	3	21	3737	0.0056
2010	3	91	3362	0.0271
2011	5	33	3041	0.0109
2012	4	26	3034	0.0086
2013	3	9	2002	0.0045
2014	5	39	1894	0.0206
2015	4	14	1894	0.0074
2016	4	34	2019	0.0168
2017	5	70	2046	0.0342