Dauphin Island Sea Lab Bottom Longline Survey incorporation into the NMFS Bottom Longline Survey

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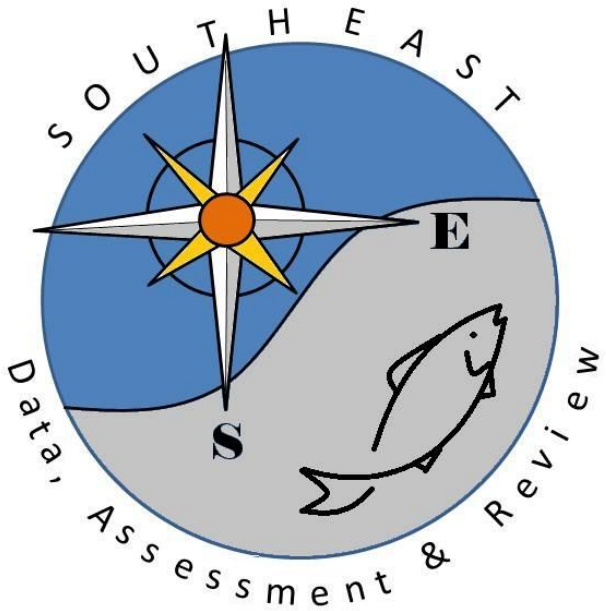
SEDAR31-AW13

28 January 2013



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Please cite as:

Ingram, G.W. 2013. Dauphin Island Sea Lab Bottom Longline Survey incorporation into the NMFS Bottom Longline Survey. SEDAR31-AW13. SEDAR, North Charleston, SC. 4 pp.

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Data from Dauphin Island Sea Bottom Longline Survey was incorporated into the NMFS Bottom Longline Survey dataset in order to develop a combined index of abundance for the eastern Gulf of Mexico. Only DISL data that were collected during July, August, and September were used to eliminate possible seasonal differences between the DISL BLL survey and the NMFS BLL survey, since the NMFS BLL survey is conducted from late July through early September (SEDAR31-DW-19).

A delta-lognormal modeling approach was employed as in SEDAR31-DW-19.

The variables used included year, depth zone, hook type, and region as described in SEDAR31-DW-19. Also, another model run included a variable to denote NMFS versus DISL surveys. The following is a summary of the results and a comparison to the NMFS only model runs.

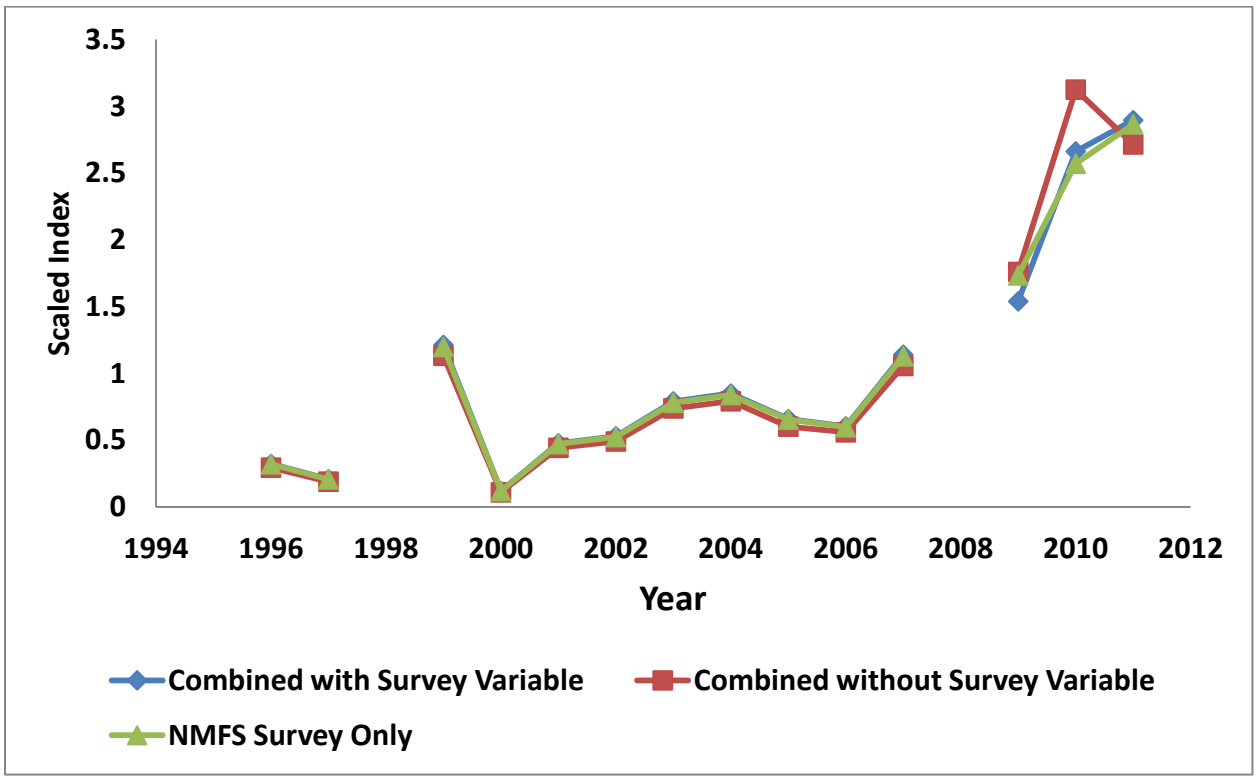
Due to the differences in sampling allocation between the DISL and the NMFS BLL surveys, it is recommended that the index modeled by including a variable to denote survey is most appropriate. However, the trend in that model is very similar to that of the index using only NMFS BLL data, which may indicate no advantage to including the DISL BLL data.

Eastern Gulf including DISL data with survey variable included.

Survey Year	*Frequency*	*N*	*Index*	*Scaled Index*	*CV*	*LCL*	*UCL*
1996	0.01923	52	0.02129	0.32156	1.15925	0.05077	2.03661
1997	0.01389	72	0.01372	0.20723	1.16164	0.03264	1.31585
1999	0.03546	141	0.08030	1.21263	0.52424	0.45261	3.24886
2000	0.00775	129	0.00790	0.11933	1.16438	0.01874	0.75996
2001	0.02128	141	0.03152	0.47591	0.67791	0.13913	1.62796
2002	0.03175	63	0.03503	0.52899	0.82385	0.12540	2.23158
2003	0.02857	175	0.05233	0.79013	0.52560	0.29424	2.12174
2004	0.02740	145	0.05619	0.84856	0.58701	0.28580	2.51948
2005	0.02000	50	0.04354	0.65751	1.15891	0.10385	4.16281
2006	0.03448	58	0.03994	0.60310	0.82298	0.14313	2.54123
2007	0.02778	72	0.07546	1.13946	0.82510	0.26965	4.81508
2009	0.06667	135	0.10192	1.53908	0.38923	0.72616	3.26204
2010	0.12598	127	0.17624	2.66135	0.28882	1.51092	4.68773
2011	0.08544	316	0.19173	2.89515	0.22468	1.85743	4.51265

Eastern Gulf including DISL data without survey variable.

Survey Year	Frequency	N	Index	Scaled Index	CV	LCL	UCL
1996	0.01923	52	0.01989	0.29412	1.21785	0.04367	1.98103
1997	0.01389	72	0.01282	0.18954	1.22024	0.02807	1.27981
1999	0.03546	141	0.07657	1.13204	0.55341	0.40262	3.18293
2000	0.00775	129	0.00738	0.10915	1.22298	0.01612	0.73906
2001	0.02128	141	0.02995	0.44278	0.71493	0.12249	1.60061
2002	0.03175	63	0.03315	0.49008	0.86818	0.10946	2.19417
2003	0.02857	175	0.04989	0.73762	0.55478	0.26176	2.07860
2004	0.02740	145	0.05351	0.79116	0.61942	0.25310	2.47312
2005	0.02000	50	0.04068	0.60140	1.21750	0.08932	4.04928
2006	0.03448	58	0.03779	0.55874	0.86731	0.12494	2.49872
2007	0.02778	72	0.07140	1.05564	0.86943	0.23539	4.73411
2009	0.06667	135	0.11901	1.75947	0.40960	0.80041	3.86771
2010	0.12598	127	0.21132	3.12429	0.30190	1.73068	5.64008
2011	0.08544	316	0.18357	2.71396	0.23733	1.69934	4.33437



Comparisons