APPENDIX C5: AIM Model results

(Combined NEFSC Weighout, VTR and Turner CPUE)

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                                    AIM Summary Report

Input File: C:\NIT\TILE\SARC41\AIM\TILECOMB3.DAT

Report Date: 27-Apr-05
Report Time: 15:44

First Year:      1973
Last Year:       2004
Number of Years: 32

Number of Indices: 1

Number of Years for Smoothing Abundance Indices: 4
Number of Years for Smoothing Relative F:        1
Number of Realizations for Randomization Test:   2000
Number of Bootstrap Iterations:                  2000
Random Number Generation Seed:                   123456
Number of Lags for Auto & Cross-correlation:     15

Relative F Smoothing Method is Lagged

          Catch          cpue

1973     3.9400E+02     5.9800E+00
1974     5.8600E+02     3.9200E+00
1975     7.1000E+02     2.7900E+00
1976     1.0100E+03     3.3100E+00
1977     2.0820E+03     3.6300E+00
1978     3.2570E+03     3.8300E+00
1979     3.9680E+03     2.9000E+00
1980     3.8890E+03     2.6400E+00
1981     3.4990E+03     2.6100E+00
1982     1.9900E+03     1.4800E+00
1983     1.8760E+03     1.0450E+00
1984     2.0090E+03     1.0000E+00
1985     1.9610E+03     8.9200E-01
1986     1.9500E+03     1.0930E+00
1987     3.2100E+03     1.2860E+00
1988     1.3610E+03     7.6600E-01
1989     4.5400E+02     6.5600E-01
1990     8.7400E+02     6.6900E-01
1991     1.1890E+03     6.4000E-01
1992     1.6530E+03     8.2300E-01
1993     1.8380E+03     7.5600E-01
1994     7.8600E+02     4.5700E-01
1995     6.6600E+02     5.3600E-01
1996     1.1210E+03     7.3400E-01
1997     1.8100E+03     1.2520E+00
1998     1.3420E+03     7.4100E-01
1999     5.2500E+02     5.2400E-01
2000     5.0600E+02     5.2400E-01
2001     8.7400E+02     7.5100E-01
2002     8.5100E+02     9.1600E-01
2003     1.1300E+03     1.4860E+00
2004     1.1820E+03     2.1290E+00

Base Case Results
                    cpue

       Replacement     Relative
          Ratio          F
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1973	N/A	65.8862876
1974	N/A	149.4897959
1975	N/A	254.4802867
1976	N/A	305.1359517
1977	0.9075000	573.5537190
1978	1.1223443	850.3916449
1979	0.8554572	1368.2758621
1980	0.7724945	1473.1060606
1981	0.8030769	1340.6130268
1982	0.4941569	1344.5945946
1983	0.4340602	1795.2153110
1984	0.5144695	2009.0000000
1985	0.5815811	2198.4304933
1986	0.9898121	1784.0805124
1987	1.2764268	2496.1119751
1988	0.7173964	1776.7624021
1989	0.6499876	692.0731707
1990	0.7040253	1306.4275037
1991	0.7580693	1857.8125000
1992	1.2054193	2008.5054678
1993	1.0846485	2431.2169312
1994	0.6329640	1719.9124726
1995	0.8011958	1242.5373134
1996	1.1415241	1527.2479564
1997	2.0169150	1445.6869010
1998	0.9949648	1811.0661269
1999	0.6423537	1001.9083969
2000	0.6447247	965.6488550
2001	0.9878329	1163.7816245
2002	1.4425197	929.0393013
2003	2.1893186	760.4306864
2004	2.3160185	555.1902302

Simple Regression Results

LN(Replacement Ratio) = A + B * LN(Relative F)

cpue

Coefficient	A	B
Estimated Value	2.1716E+00	-3.1657E-01
Std Error Coeff	1.3898E+00	1.9275E-01
t Statistic	1.5626E+00	-1.6424E+00
p-Value (2 Sided)	1.3025E-01	1.1255E-01
Variance Inflation Factor	3.1191E+02	1.0000E+00

Relative F (for ln(Replacement Ratio = 0) = 9.530539E+02

Analysis of Variance

Degrees of Freedom for Regression	1.0000E+00
Degrees of Freedom for Error	2.6000E+01
Total Degrees of Freedom	2.7000E+01
Sum of Squares for Regression	4.6770E-01
Sum of Squares for Error	4.5080E+00
Total Sum of Squares	4.9757E+00
Regression Mean Square	4.6770E-01
Error Mean Square	1.7338E-01
F-Statistic	2.6975E+00
p-Value	1.1255E-01
R Squared (percent)	9.3998E+00
Adjusted R Squared (percent)	5.9152E+00
Estimated Standard deviation of model error	4.1639E-01
Mean of response (dependent) variable	-1.0730E-01
Coefficient of Variation (percent)	-3.8808E+02

Least Absolute Value Regression Results

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LN(Replacement Ratio) = A + B * LN(Relative F)
cpue

Coefficient                        A               B
Estimated Value                    8.1748E-01    -1.4398E-01
Sum of Absolute Value of Error   = 9.1166E+00

Relative F (for ln(Replacement Ratio = 0) = 2.922861E+02
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