[] Dendrochronology Program Library Run RNA Program COF 18:57 Wed 05 Jul 2017 Page 1

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[] P R O G R A M C O F E C H A Version 6.06P 30138

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QUALITY CONTROL AND DATING CHECK OF TREE-RING MEASUREMENTS

File of DATED series: rna.txt

CONTENTS:

Part 1: Title page, options selected, summary, absent rings by series

Part 2: Histogram of time spans

Part 3: Master series with sample depth and absent rings by year

Part 4: Bar plot of Master Dating Series

Part 5: Correlation by segment of each series with Master

Part 6: Potential problems: low correlation, divergent year-to-year changes, absent rings, outliers

Part 7: Descriptive statistics

RUN CONTROL OPTIONS SELECTED VALUE

1 Cubic smoothing spline 50% wavelength cutoff for filtering

32 years

2 Segments examined are 50 years lagged successively by 25 years

3 Autoregressive model applied A Residuals are used in master dating series and testing

4 Series transformed to logarithms Y Each series log-transformed for master dating series and testing

5 CORRELATION is Pearson (parametric, quantitative)

Critical correlation, 99% confidence level .3281

6 Master dating series saved N

7 Ring measurements listed N

8 Parts printed 1234567

9 Absent rings are omitted from master series and segment correlations (Y)

Time span of Master dating series is 1825 to 2016 192 years

Continuous time span is 1825 to 2016 192 years

Portion with two or more series is 1852 to 2016 165 years

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*C\* Number of dated series 19 \*C\*

\*O\* Master series 1825 2016 192 yrs \*O\*

\*F\* Total rings in all series 2232 \*F\*

\*E\* Total dated rings checked 2205 \*E\*

\*C\* Series intercorrelation .592 \*C\*

\*H\* Average mean sensitivity .239 \*H\*

\*A\* Segments, possible problems 4 \*A\*

\*\*\* Mean length of series 117.5 \*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ABSENT RINGS listed by SERIES: (See Master Dating Series for absent rings listed by year)

No ring measurements of zero value

PART 2: TIME PLOT OF TREE-RING SERIES: 18:57 Wed 05 Jul 2017 Page 2

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1050 1100 1150 1200 1250 1300 1350 1400 1450 1500 1550 1600 1650 1700 1750 1800 1850 1900 1950 2000 2050 Ident Seq Time-span Yrs

: : : : : : : : : : : : : : : : : : : : : -------- --- ---- ---- ----

. . . . . . . . . . . . . . . . . <=============> . RNA01A 1 1875 2016 142

. . . . . . . . . . . . . . . . . <===========> . RNA01B 2 1893 2016 124

. . . . . . . . . . . . . . . . <===============> . RNA02A 3 1853 2015 163

. . . . . . . . . . . . . . . . . <============> . RNA02B 4 1888 2013 126

. . . . . . . . . . . . . . . . .<==============> . RNA03A 5 1866 2015 150

. . . . . . . . . . . . . . . . . . <========> . RNA03B 6 1928 2015 88

. . . . . . . . . . . . . . . . . <=============> . RNA04A 7 1870 2015 146

. . . . . . . . . . . . . . . . <===============> . RNA04B 8 1852 2016 165

. . . . . . . . . . . . . . . . . . <========> . RNA05A 9 1922 2015 94

. . . . . . . . . . . . . . . . . .<=========> . RNA05B 10 1915 2015 101

. . . . . . . . . . . . . . . . . .<=====> . . RNA06A 11 1910 1975 66

. . . . . . . . . . . . . . . . . .<=====> . . RNA06B 12 1917 1974 58

. . . . . . . . . . . . . . . . . .<=========> . RNA07A 13 1916 2015 100

. . . . . . . . . . . . . . . . . .<=========> . RNA07B 14 1911 2015 105

. . . . . . . . . . . . . . . . . .<=========> . RNA08A 15 1916 2016 101

. . . . . . . . . . . . . . . . . <=============> . RNA09A 16 1876 2015 140

. . . . . . . . . . . . . . . . <==================> . RNA09B 17 1825 2015 191

. . . . . . . . . . . . . . . . . .<=========> . RNA10A 18 1916 2015 100

. . . . . . . . . . . . . . . . . . <======> . RNA10B 19 1944 2015 72

: : : : : : : : : : : : : : : : : : : : :

1050 1100 1150 1200 1250 1300 1350 1400 1450 1500 1550 1600 1650 1700 1750 1800 1850 1900 1950 2000 2050

PART 3: Master Dating Series: 18:57 Wed 05 Jul 2017 Page 3

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Year Value No Ab Year Value No Ab Year Value No Ab Year Value No Ab Year Value No Ab Year Value No Ab

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1850 1.510 1 1900 -.980 9 1950 .350 19 2000 .493 17

1851 .365 1 1901 -.354 9 1951 1.023 19 2001 1.280 17

1852 -.539 2 1902 -.363 9 1952 -.196 19 2002 .977 17

1853 -.554 3 1903 .570 9 1953 .605 19 2003 .468 17

1854 -.521 3 1904 .479 9 1954 -.840 19 2004 .269 17

1855 1.147 3 1905 .970 9 1955 .801 19 2005 -.291 17

1856 -.146 3 1906 .938 9 1956 .976 19 2006 -.821 17

1857 -.998 3 1907 1.424 9 1957 .271 19 2007 -.866 17

1858 .166 3 1908 .266 9 1958 1.376 19 2008 .358 17

1859 -.603 3 1909 .070 9 1959 -1.631 19 2009 -.141 17

1860 -.033 3 1910 -.053 10 1960 -.437 19 2010 -.466 17

1861 -.402 3 1911 -.394 11 1961 .403 19 2011 .521 17

1862 .309 3 1912 1.973 11 1962 -1.135 19 2012 -1.391 17

1863 -.506 3 1913 .215 11 1963 .094 19 2013 .634 17

1864 .766 3 1914 -1.124 11 1964 -.698 19 2014 -.300 16

1865 1.430 3 1915 .805 12 1965 -.820 19 2015 .931 16

1866 .694 4 1916 .485 15 1966 -1.306 19 2016 .808 4

1867 .325 4 1917 .033 16 1967 .045 19

1868 -.393 4 1918 -2.036 16 1968 .589 19

1869 .336 4 1919 -.103 16 1969 -.027 19

1870 -1.597 5 1920 .216 16 1970 .781 19

1871 -1.561 5 1921 .102 16 1971 1.111 19

1872 .067 5 1922 -.356 17 1972 -1.195 19

1873 .255 5 1923 .506 17 1973 .049 19

1874 -1.951 5 1924 .763 17 1974 .645 19

1825 .062 1 1875 1.343 6 1925 -1.691 17 1975 .586 18

1826 -.877 1 1876 .610 7 1926 .662 17 1976 .420 17

1827 .994 1 1877 1.062 7 1927 .485 17 1977 -1.063 17

1828 1.529 1 1878 .074 7 1928 .530 18 1978 .560 17

1829 -1.846 1 1879 -.354 7 1929 -1.142 18 1979 -.878 17

1830 1.406 1 1880 -.289 7 1930 -2.291 18 1980 1.448 17

1831 -.021 1 1881 -.393 7 1931 -.340 18 1981 -1.086 17

1832 1.324 1 1882 1.710 7 1932 1.334 18 1982 -.320 17

1833 -.238 1 1883 1.290 7 1933 .673 18 1983 .756 17

1834 -4.246 1 1884 .246 7 1934 -1.293 18 1984 -.379 17

1835 1.269 1 1885 .559 7 1935 .683 18 1985 1.328 17

1836 1.086 1 1886 .745 7 1936 -1.016 18 1986 -.065 17

1837 .524 1 1887 .214 7 1937 1.124 18 1987 .054 17

1838 -.426 1 1888 -.614 8 1938 .791 18 1988 -1.485 17

1839 -3.784 1 1889 .992 8 1939 -.397 18 1989 .589 17

1840 .318 1 1890 -.121 8 1940 -.391 18 1990 .553 17

1841 .522 1 1891 .700 8 1941 .079 18 1991 -1.002 17

1842 1.531 1 1892 .356 8 1942 .475 18 1992 -.394 17

1843 1.328 1 1893 -.808 9 1943 .691 18 1993 .933 17

1844 -.704 1 1894 -1.300 9 1944 -1.499 19 1994 .239 17

1845 -.751 1 1895 -2.252 9 1945 .339 19 1995 .467 17

1846 .461 1 1896 -.610 9 1946 .403 19 1996 -.504 17

1847 1.122 1 1897 -.543 9 1947 -.217 19 1997 -1.244 17

1848 1.095 1 1898 -1.255 9 1948 -3.040 19 1998 .087 17

1849 .571 1 1899 -1.746 9 1949 .621 19 1999 -1.954 17

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PART 4: Master Bar Plot: 18:57 Wed 05 Jul 2017 Page 4

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Year Rel value Year Rel value Year Rel value Year Rel value Year Rel value Year Rel value Year Rel value Year Rel value

1850----------F 1900-d 1950------A 2000-------B

1851------A 1901---a 1951---------D 2001----------E

1852--b 1902---a 1952----a 2002---------D

1853--b 1903-------B 1953-------B 2003-------B

1854--b 1904-------B 1954--c 2004-----A

1855---------E 1905---------D 1955--------C 2005---a

1856----a 1906---------D 1956---------D 2006--c

1857-d 1907----------F 1957-----A 2007-c

1858-----A 1908-----A 1958----------F 2008------A

1859--b 1909----@ 1959g 2009----a

1860----@ 1910----@ 1960---b 2010---b

1861---b 1911---b 1961------B 2011-------B

1862------A 1912----------H 1962-e 2012-f

1863--b 1913-----A 1963-----@ 2013--------C

1864--------C 1914-d 1964--c 2014---a

1865----------F 1915--------C 1965--c 2015---------D

1866--------C 1916-------B 1966-e 2016--------C

1867------A 1917----@ 1967----@

1868---b 1918h 1968-------B

1869------A 1919----@ 1969----@

1870f 1920-----A 1970--------C

1871f 1921-----@ 1971---------D

1872----@ 1922---a 1972-e

1873-----A 1923-------B 1973----@

1874h 1924--------C 1974--------C

1825----@ 1875----------E 1925g 1975-------B

1826-d 1876-------B 1926--------C 1976------B

1827---------D 1877---------D 1927-------B 1977-d

1828----------F 1878----@ 1928-------B 1978-------B

1829g 1879---a 1929-e 1979-d

1830----------F 1880---a 1930i 1980----------F

1831----@ 1881---b 1931---a 1981-d

1832----------E 1882----------G 1932----------E 1982---a

1833---a 1883----------E 1933--------C 1983--------C

1834q 1884-----A 1934-e 1984---b

1835----------E 1885-------B 1935--------C 1985----------E

1836---------D 1886--------C 1936-d 1986----@

1837-------B 1887-----A 1937---------D 1987----@

1838---b 1888--b 1938--------C 1988f

1839o 1889---------D 1939---b 1989-------B

1840------A 1890----@ 1940---b 1990-------B

1841-------B 1891--------C 1941----@ 1991-d

1842----------F 1892------A 1942-------B 1992---b

1843----------E 1893--c 1943--------C 1993---------D

1844--c 1894-e 1944f 1994-----A

1845--c 1895i 1945------A 1995-------B

1846------B 1896--b 1946------B 1996--b

1847---------D 1897--b 1947---a 1997-e

1848---------D 1898-e 1948l 1998-----@

1849-------B 1899g 1949-------B 1999h

PART 5: CORRELATION OF SERIES BY SEGMENTS: 18:57 Wed 05 Jul 2017 Page 5

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Correlations of 50-year dated segments, lagged 25 years

Flags: A = correlation under .3281 but highest as dated; B = correlation higher at other than dated position

Seq Series Time\_span 1850 1875 1900 1925 1950 1975

1899 1924 1949 1974 1999 2024

--- -------- --------- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----

1 RNA01A 1875 2016 .54 .67 .71 .72 .65

2 RNA01B 1893 2016 .85 .90 .85 .67 .52

3 RNA02A 1853 2015 .45 .69 .76 .73 .66 .61

4 RNA02B 1888 2013 .58 .65 .61 .33 .45

5 RNA03A 1866 2015 .75 .81 .83 .75 .67 .60

6 RNA03B 1928 2015 .70 .76 .68

7 RNA04A 1870 2015 .79 .84 .77 .76 .73 .71

8 RNA04B 1852 2016 .34 .72 .79 .74 .64 .64

9 RNA05A 1922 2015 .77 .72 .62 .45

10 RNA05B 1915 2015 .42 .62 .69 .52

11 RNA06A 1910 1975 .57 .52 .52

12 RNA06B 1917 1974 .45 .40

13 RNA07A 1916 2015 .64 .66 .52 .38

14 RNA07B 1911 2015 .67 .55 .51 .32A

15 RNA08A 1916 2016 .70 .73 .55 .40

16 RNA09A 1876 2015 .44 .62 .73 .70 .57

17 RNA09B 1825 2015 .29A .56 .71 .78 .75 .68

18 RNA10A 1916 2015 .33B .31B .44 .50

19 RNA10B 1944 2015 .66 .47 .45

Av segment correlation .52 .67 .66 .66 .61 .54

PART 6: POTENTIAL PROBLEMS: 18:57 Wed 05 Jul 2017 Page 5

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For each series with potential problems the following diagnostics may appear:

[A] Correlations with master dating series of flagged 50-year segments of series filtered with 32-year spline,

at every point from ten years earlier (-10) to ten years later (+10) than dated

[B] Effect of those data values which most lower or raise correlation with master series

Symbol following year indicates value in series is greater (>) or lesser (<) than master series value

[C] Year-to-year changes very different from the mean change in other series

[D] Absent rings (zero values)

[E] Values which are statistical outliers from mean for the year

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RNA01A 1875 to 2016 142 years Series 1

[B] Entire series, effect on correlation ( .637) is:

Lower 1891< -.019 1929> -.010 1877< -.009 1892< -.008 2006> -.007 1899> -.005 Higher 1930 .014 1999 .012

====================================================================================================================================

RNA01B 1893 to 2016 124 years Series 2

[B] Entire series, effect on correlation ( .761) is:

Lower 1989< -.011 2006> -.010 2014< -.010 1893> -.007 1979> -.007 1968< -.007 Higher 1948 .035 1930 .012

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RNA02A 1853 to 2015 163 years Series 3

[B] Entire series, effect on correlation ( .624) is:

Lower 1853< -.046 1972< -.012 1874> -.010 1956< -.008 1944> -.007 1878< -.006 Higher 1948 .022 1959 .011

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1853 -5.6 SD

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RNA02B 1888 to 2013 126 years Series 4

[B] Entire series, effect on correlation ( .511) is:

Lower 1950< -.025 1915< -.023 1949< -.015 1995< -.012 1888> -.012 1977> -.011 Higher 1948 .033 1930 .025

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1950 -5.8 SD

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RNA03A 1866 to 2015 150 years Series 5

[B] Entire series, effect on correlation ( .718) is:

Lower 1984< -.018 2009< -.013 1948> -.012 1979> -.010 1972> -.009 1933< -.007 Higher 1930 .011 1959 .009

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1961 +3.2 SD

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RNA03B 1928 to 2015 88 years Series 6

[B] Entire series, effect on correlation ( .677) is:

Lower 1930> -.029 2012> -.014 1943< -.014 1929< -.014 1979> -.012 2015< -.010 Higher 1999 .019 1944 .012

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RNA04A 1870 to 2015 146 years Series 7

[B] Entire series, effect on correlation ( .744) is:

Lower 1870> -.011 1934< -.010 1981> -.008 1988> -.007 1977< -.005 1998< -.004 Higher 1999 .009 1925 .006

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RNA04B 1852 to 2016 165 years Series 8

[B] Entire series, effect on correlation ( .579) is:

Lower 1852> -.036 1870> -.020 2012< -.015 1853> -.014 1994< -.011 1862< -.009 Higher 1918 .013 1999 .011

[E] Outliers 3 3.0 SD above or -4.5 SD below mean for year

1852 +4.5 SD; 1853 +3.1 SD; 1870 +3.2 SD

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RNA05A 1922 to 2015 94 years Series 9

[B] Entire series, effect on correlation ( .608) is:

Lower 1976< -.034 1948> -.033 1974< -.016 2003< -.013 1977> -.012 2006< -.012 Higher 1930 .030 1959 .019

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RNA05B 1915 to 2015 101 years Series 10

[B] Entire series, effect on correlation ( .458) is:

Lower 1917< -.062 1948> -.035 1918> -.027 2003< -.019 1977> -.012 2011< -.011 Higher 1944 .019 1930 .014

[C] Year-to-year changes diverging by over 4.0 std deviations:

1917 1918 4.1 SD

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1917 -4.7 SD

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RNA06A 1910 to 1975 66 years Series 11

[B] Entire series, effect on correlation ( .544) is:

Lower 1957< -.051 1959> -.041 1934> -.032 1970< -.020 1974< -.017 1927< -.012 Higher 1948 .087 1930 .050

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RNA06B 1917 to 1974 58 years Series 12

[B] Entire series, effect on correlation ( .406) is:

Lower 1957< -.048 1970< -.043 1934> -.041 1959> -.038 1955< -.019 1962> -.016 Higher 1948 .166 1930 .042

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1934 +3.5 SD

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RNA07A 1916 to 2015 100 years Series 13

[B] Entire series, effect on correlation ( .523) is:

Lower 2012> -.021 2008< -.020 1991> -.019 1916< -.019 1970< -.017 1999> -.009 Higher 1948 .049 1930 .021

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RNA07B 1911 to 2015 105 years Series 14

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

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1966 2015 0 .06 .09 .01 -.02 -.18 -.11 .06 -.06 -.01 .10 .32\*-.10 - - - - - - - - -

[B] Entire series, effect on correlation ( .501) is:

Lower 2008< -.080 1970< -.054 1934> -.020 1938< -.012 2014> -.008 1986> -.008 Higher 1948 .035 1944 .018

1966 to 2015 segment:

Lower 2008< -.138 1970< -.098 2014> -.016 1986> -.015 1997> -.015 1984> -.012 Higher 1999 .036 1981 .029

[E] Outliers 2 3.0 SD above or -4.5 SD below mean for year

1970 -4.6 SD; 2008 -5.1 SD

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RNA08A 1916 to 2016 101 years Series 15

[B] Entire series, effect on correlation ( .581) is:

Lower 2014< -.038 2000< -.019 1991> -.016 1929> -.013 1965> -.012 1989< -.011 Higher 1948 .087 1925 .019

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

2014 -4.9 SD

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RNA09A 1876 to 2015 140 years Series 16

[B] Entire series, effect on correlation ( .564) is:

Lower 1886< -.021 2000< -.018 1876< -.016 1920< -.016 1935< -.012 2006> -.012 Higher 1948 .052 1895 .018

[E] Outliers 1 3.0 SD above or -4.5 SD below mean for year

1903 +3.6 SD

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RNA09B 1825 to 2015 191 years Series 17

[\*] Early part of series cannot be checked from 1825 to 1851 -- not matched by another series

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

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1852 1901 0 .15 -.08 -.16 -.05 -.16 -.13 -.06 -.03 -.27 .02 .29\* .02 .05 .20 .23 .20 .04 .18 -.02 -.04 -.09

[B] Entire series, effect on correlation ( .571) is:

Lower 1852< -.030 1866< -.019 1853> -.016 1865< -.015 2007> -.011 1898> -.010 Higher 1948 .050 1895 .013

1852 to 1901 segment:

Lower 1852< -.083 1866< -.049 1853> -.043 1865< -.028 1898> -.026 1861> -.025 Higher 1895 .074 1899 .041

[C] Year-to-year changes diverging by over 4.0 std deviations:

1852 1853 4.1 SD

[E] Outliers 3 3.0 SD above or -4.5 SD below mean for year

1852 -4.5 SD; 1902 +3.3 SD; 2007 +3.4 SD

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RNA10A 1916 to 2015 100 years Series 18

[A] Segment High -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 +0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

--------- ---- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1916 1965 -4 -.14 .03 .17 .02 -.36 -.07 .37\*-.12 -.08 -.30 .33| .20 .04 -.18 -.13 .04 .12 .11 -.25 -.05 .05

1925 1974 -4 -.11 .01 .11 -.02 -.32 -.08 .37\*-.07 .00 -.27 .31| .21 -.02 -.15 -.17 .11 .18 .08 -.28 -.07 .19

[B] Entire series, effect on correlation ( .391) is:

Lower 1938< -.080 1944> -.023 1930> -.021 1991> -.017 1954> -.012 1983< -.011 Higher 1948 .074 1981 .016

1916 to 1965 segment:

Lower 1938< -.125 1944> -.036 1930> -.032 1954> -.019 1935< -.013 1936> -.011 Higher 1948 .137 1918 .026

1925 to 1974 segment:

Lower 1938< -.121 1944> -.037 1930> -.032 1954> -.020 1935< -.012 1936> -.012 Higher 1948 .142 1959 .026

[E] Outliers 3 3.0 SD above or -4.5 SD below mean for year

1938 -5.1 SD; 1944 +3.2 SD; 1991 +3.1 SD

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RNA10B 1944 to 2015 72 years Series 19

[B] Entire series, effect on correlation ( .625) is:

Lower 1966> -.019 1953< -.019 1999> -.012 1979> -.012 1975< -.011 1976< -.010 Higher 1948 .113 1959 .026

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PART 7: DESCRIPTIVE STATISTICS: 18:57 Wed 05 Jul 2017 Page 6

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Corr //-------- Unfiltered --------\\ //---- Filtered -----\\

No. No. No. with Mean Max Std Auto Mean Max Std Auto AR

Seq Series Interval Years Segmt Flags Master msmt msmt dev corr sens value dev corr ()

--- -------- --------- ----- ----- ----- ------ ----- ----- ----- ----- ----- ----- ----- ----- --

1 RNA01A 1875 2016 142 5 0 .637 2.59 10.56 1.864 .895 .241 2.61 .390 -.012 1

2 RNA01B 1893 2016 124 5 0 .761 3.14 8.19 1.326 .781 .216 2.65 .446 -.033 1

3 RNA02A 1853 2015 163 6 0 .624 1.63 8.77 1.200 .814 .295 2.90 .443 .026 1

4 RNA02B 1888 2013 126 5 0 .511 2.15 10.61 1.455 .818 .256 2.82 .455 -.057 1

5 RNA03A 1866 2015 150 6 0 .718 1.91 5.24 .782 .650 .252 2.76 .477 -.055 1

6 RNA03B 1928 2015 88 3 0 .677 3.57 5.88 1.035 .526 .249 2.69 .516 -.009 1

7 RNA04A 1870 2015 146 6 0 .744 2.25 7.25 1.017 .722 .236 2.62 .475 .010 1

8 RNA04B 1852 2016 165 6 0 .579 1.81 5.79 .983 .841 .223 2.54 .367 -.042 1

9 RNA05A 1922 2015 94 4 0 .608 3.85 9.05 1.642 .760 .239 2.74 .570 -.034 2

10 RNA05B 1915 2015 101 4 0 .458 3.81 9.11 1.732 .810 .228 2.59 .456 -.041 2

11 RNA06A 1910 1975 66 3 0 .544 3.07 4.78 .675 .225 .221 2.55 .463 .047 1

12 RNA06B 1917 1974 58 2 0 .406 3.25 5.36 .825 .434 .217 2.53 .514 -.022 1

13 RNA07A 1916 2015 100 4 0 .523 2.98 4.90 .751 .242 .234 2.71 .551 -.044 2

14 RNA07B 1911 2015 105 4 1 .501 3.28 6.02 1.052 .531 .231 2.57 .459 -.035 1

15 RNA08A 1916 2016 101 4 0 .581 3.39 6.29 .846 .227 .250 2.66 .392 -.008 1

16 RNA09A 1876 2015 140 5 0 .564 3.15 6.68 1.151 .692 .222 2.73 .458 -.028 1

17 RNA09B 1825 2015 191 6 1 .571 2.42 5.42 1.242 .798 .251 2.48 .410 -.031 1

18 RNA10A 1916 2015 100 4 2 .391 3.06 5.64 .913 .565 .222 2.50 .414 -.033 1

19 RNA10B 1944 2015 72 3 0 .625 3.90 6.65 1.254 .591 .216 2.60 .420 -.028 1

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Total or mean: 2232 85 4 .592 2.75 10.61 1.165 .668 .239 2.90 .450 -.024

- = [ COFECHA RNA COF ] = -