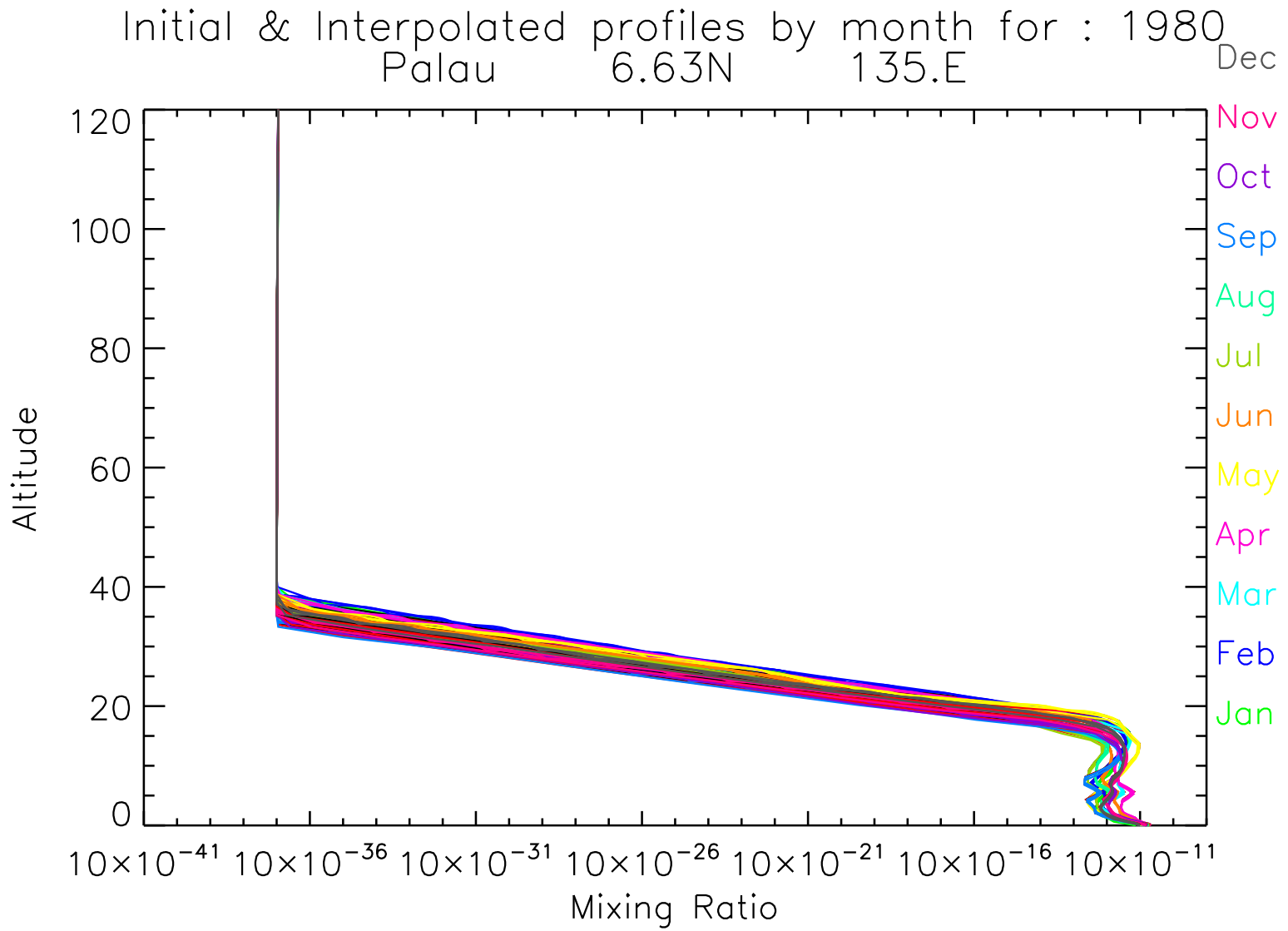
Initial & Interpolated profiles by month for : 1980
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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20
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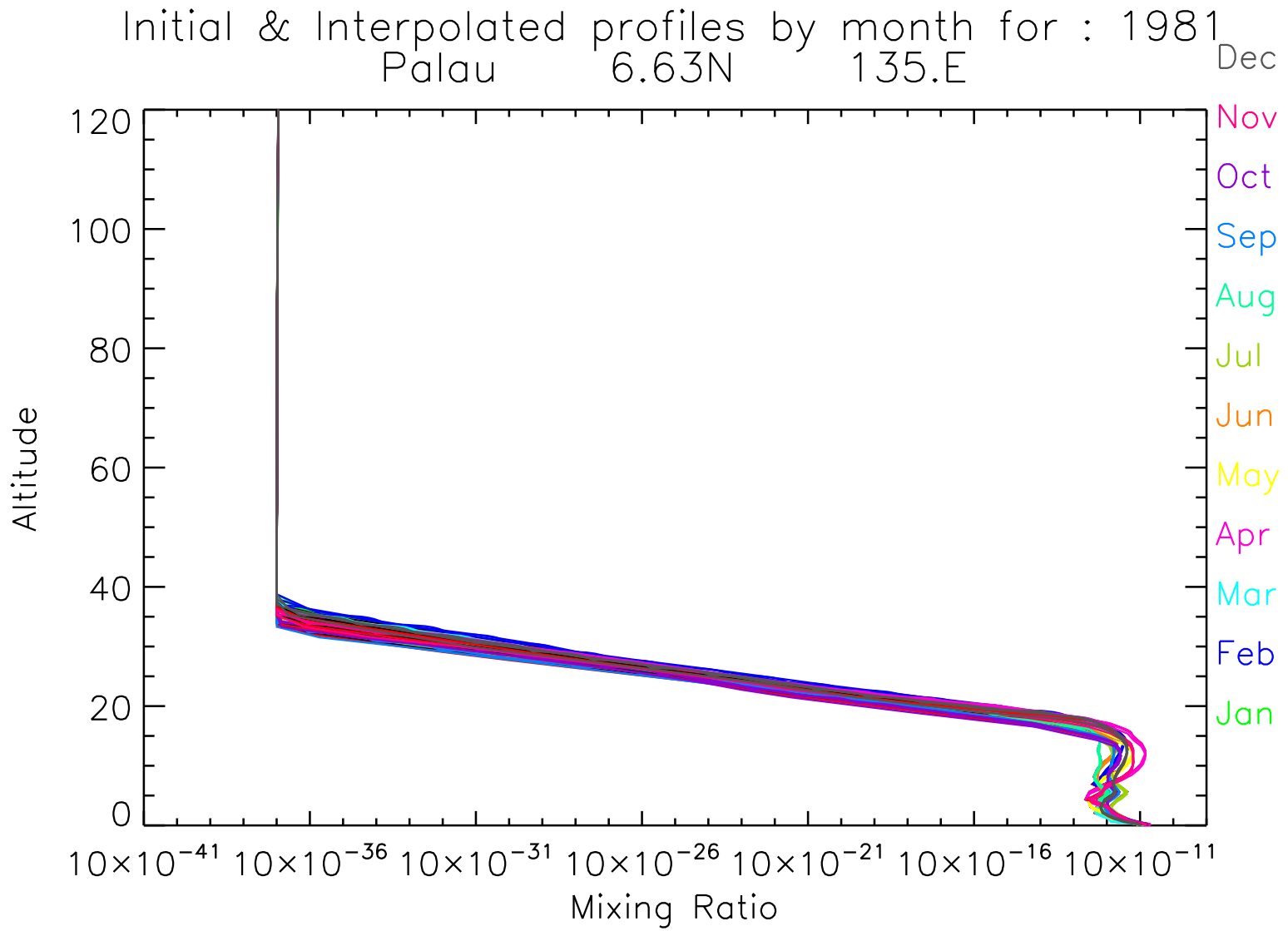
Mixing Ratio


Initial & Interpolated profiles by month for : 1981
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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20
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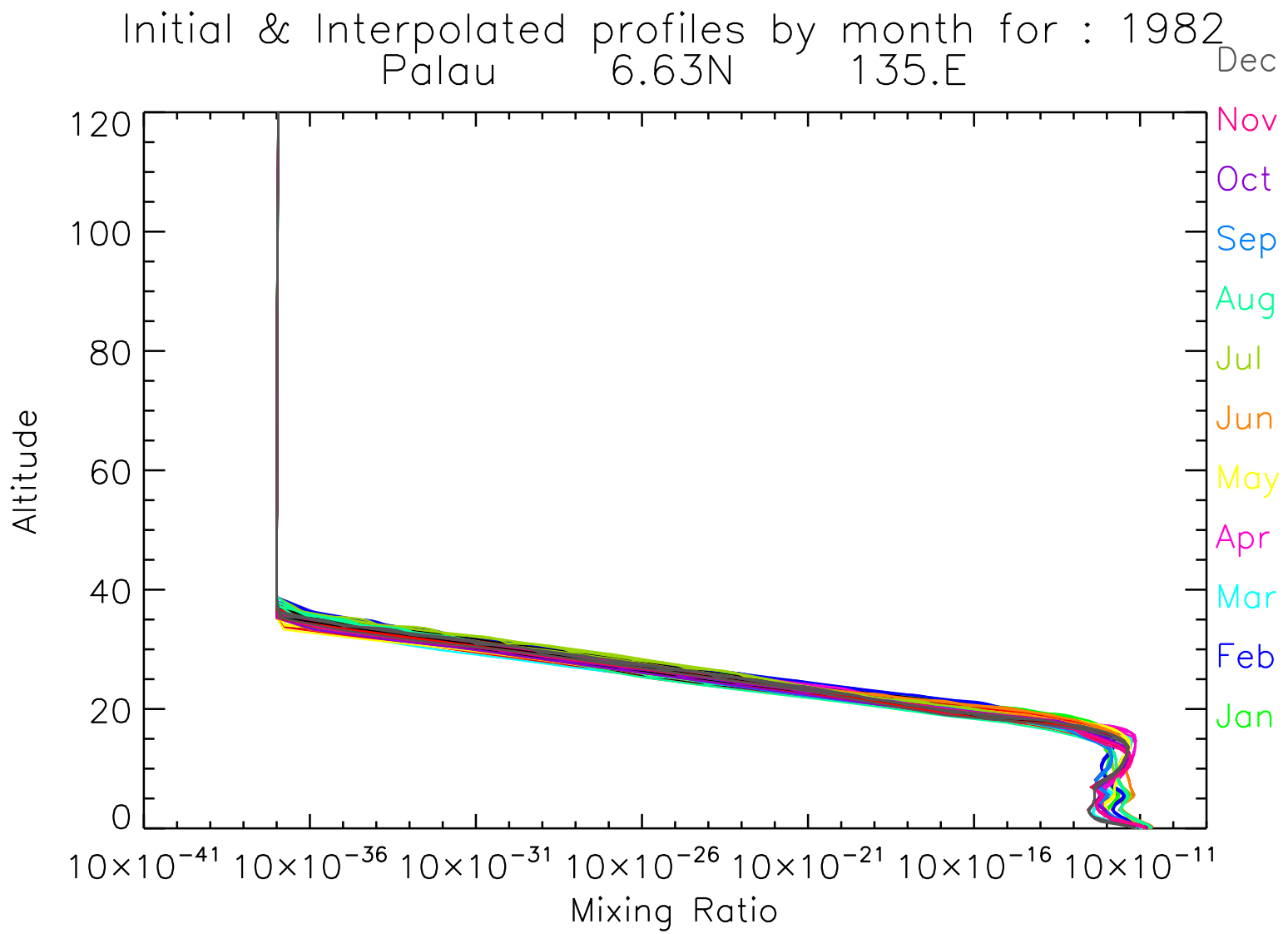
Mixing Ratio


Initial & Interpolated profiles by month for : 1982
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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20
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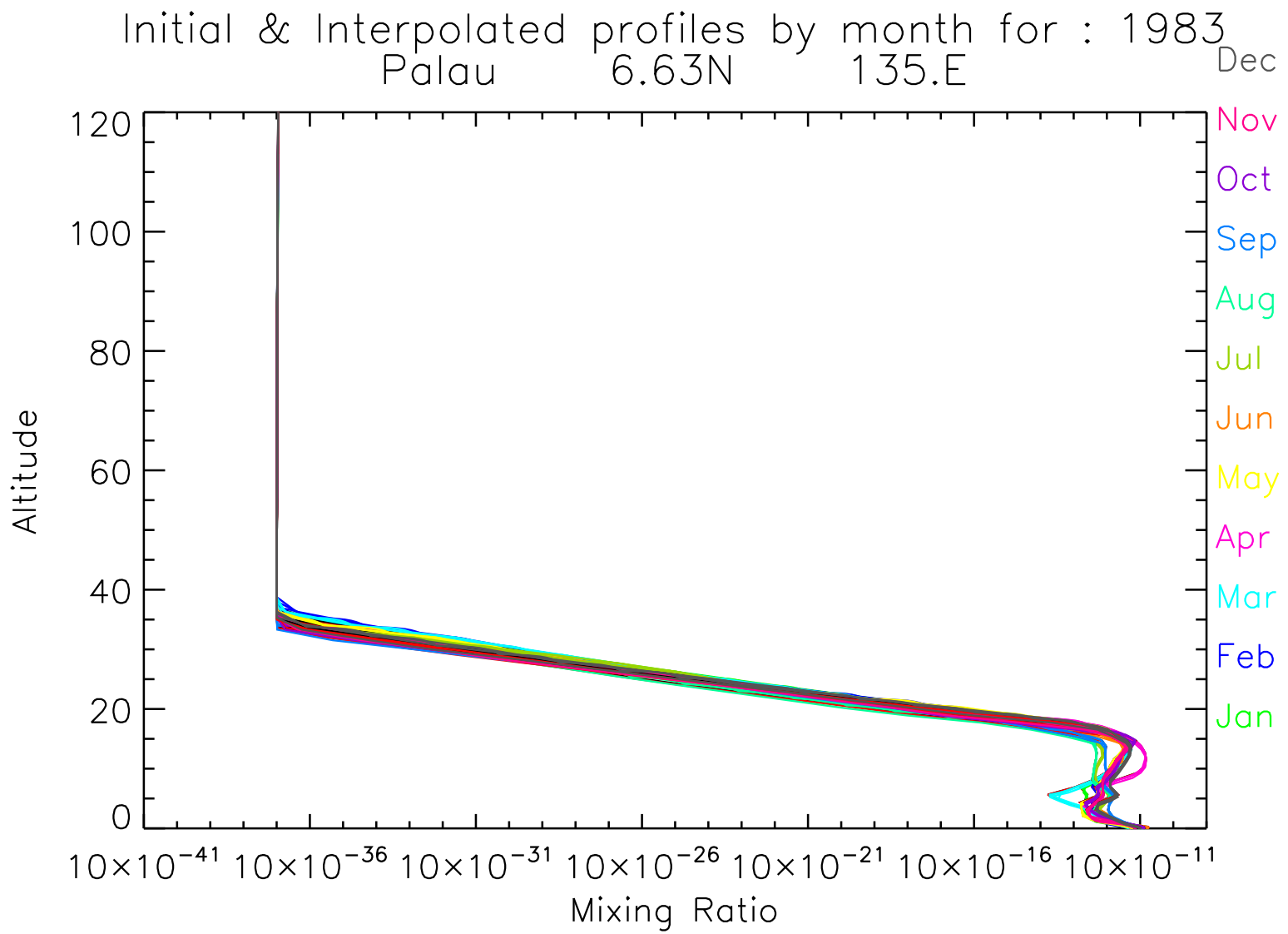
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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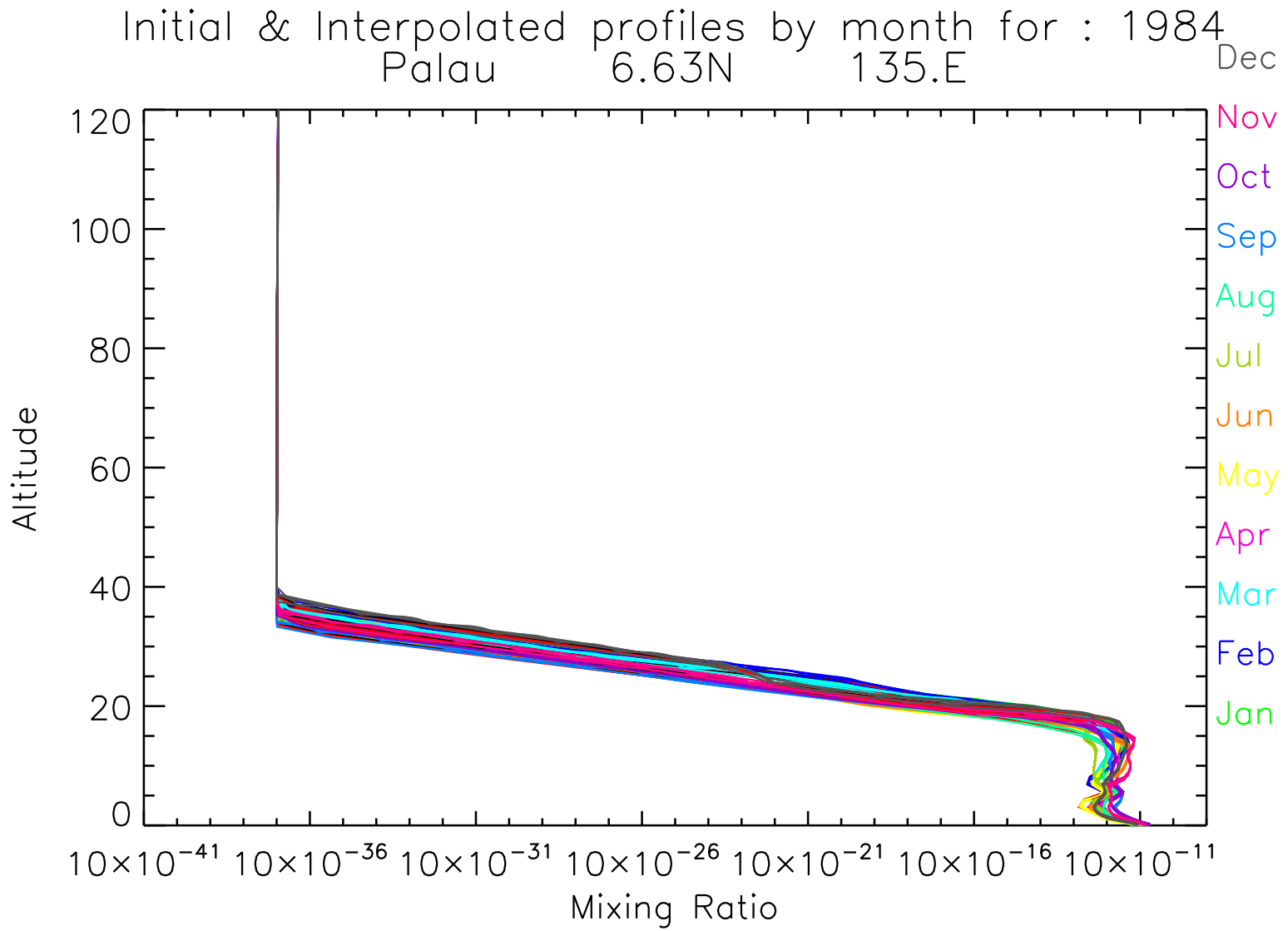
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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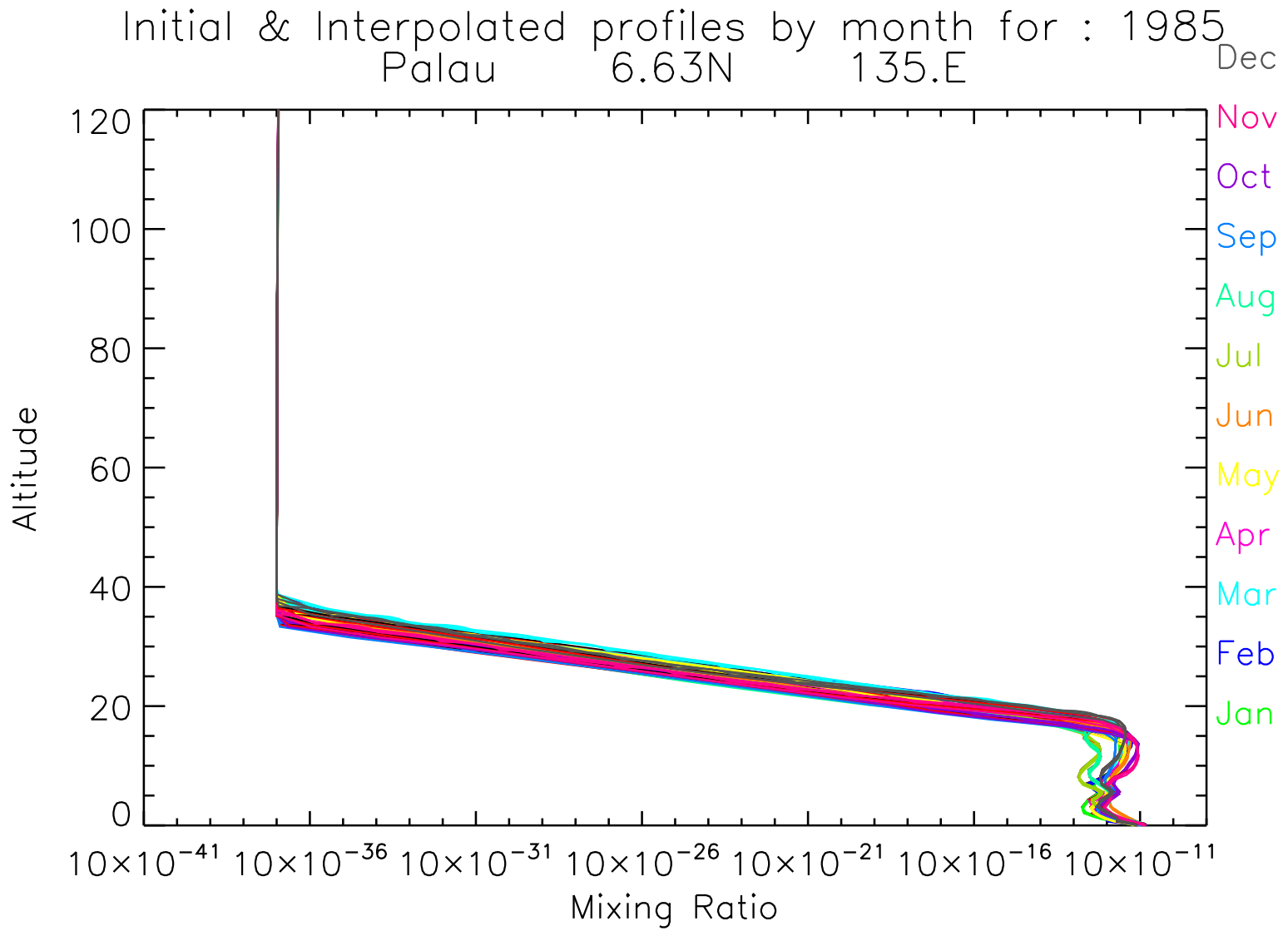
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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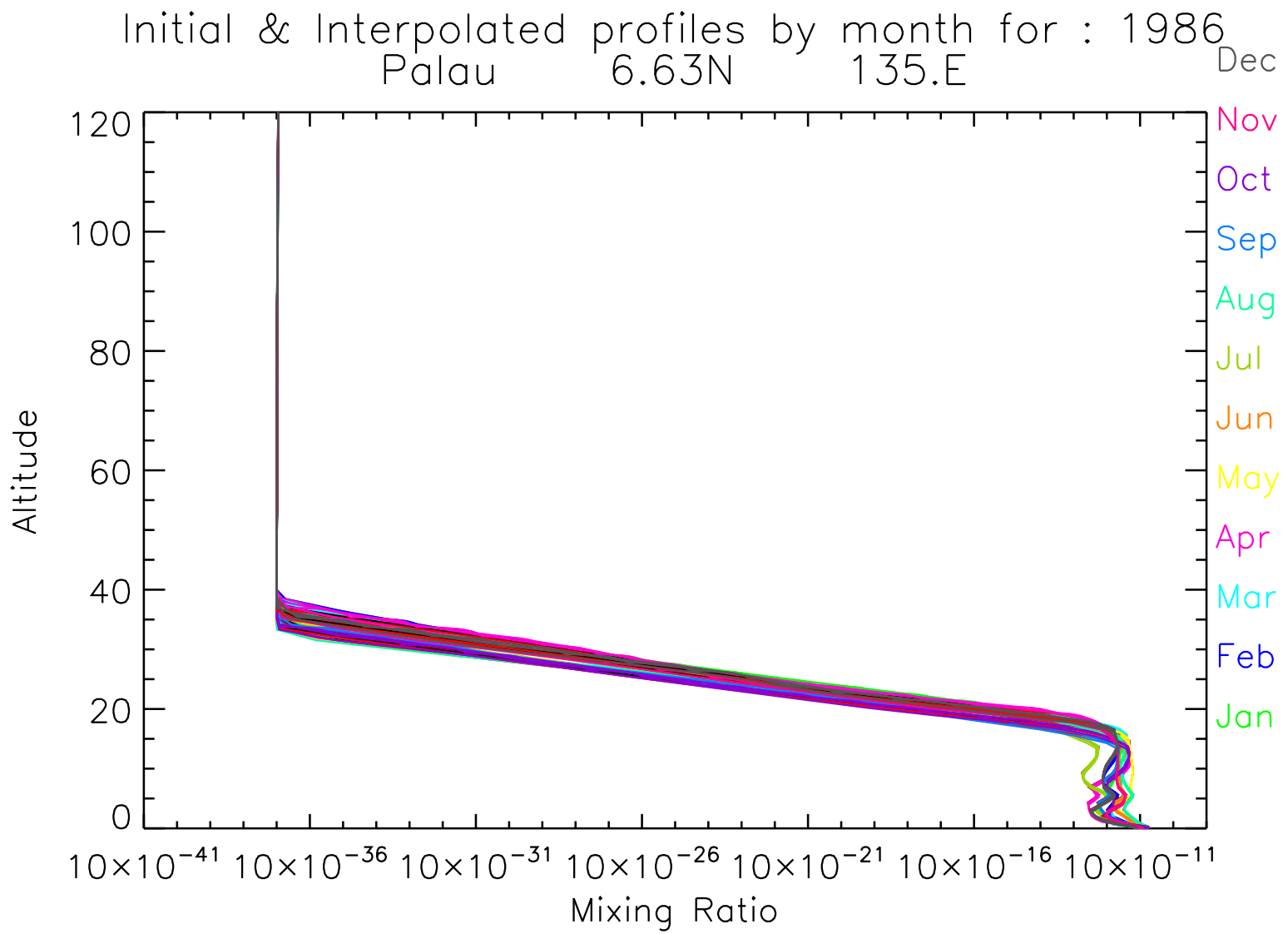
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
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20
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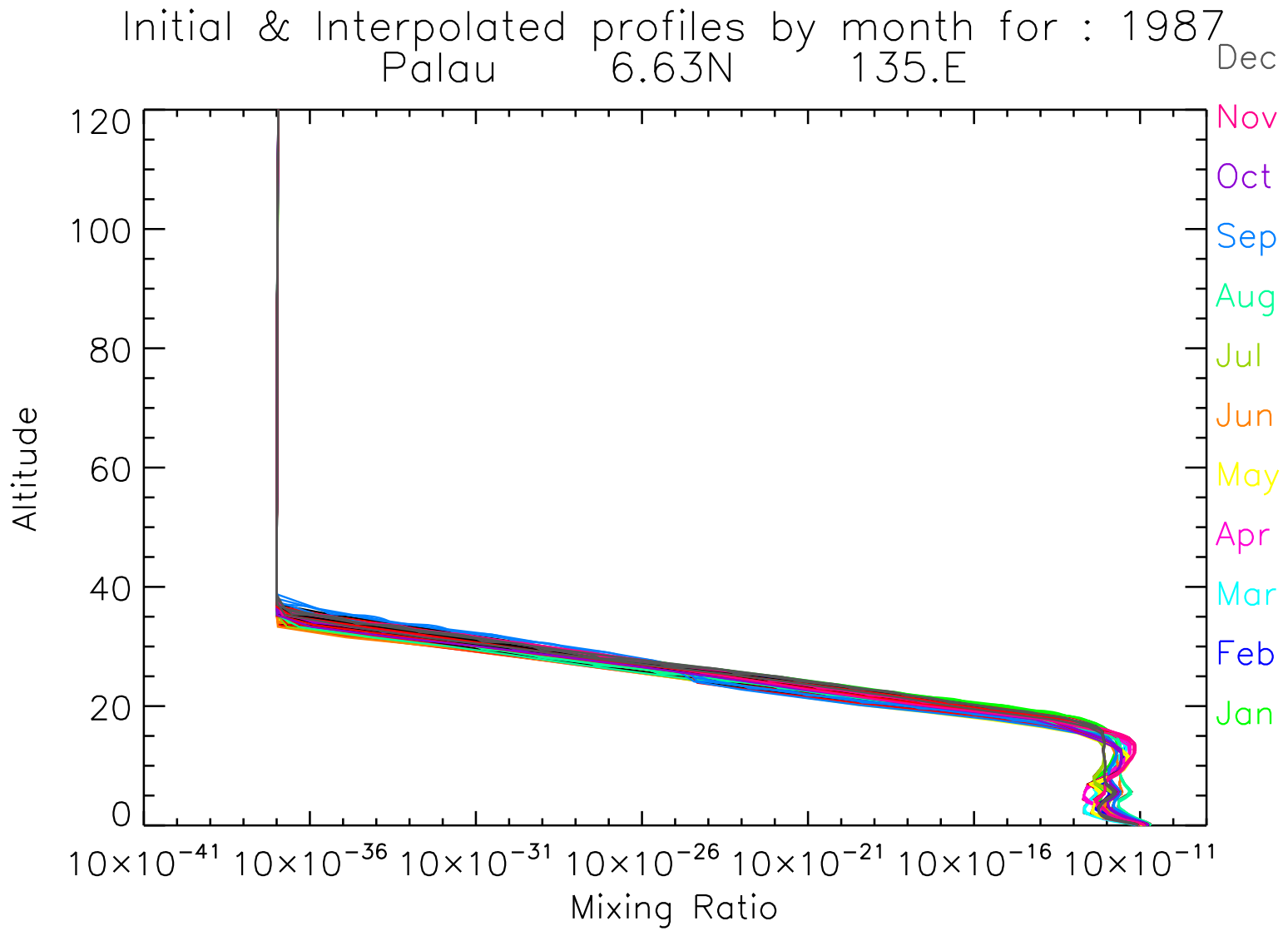
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
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100
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20
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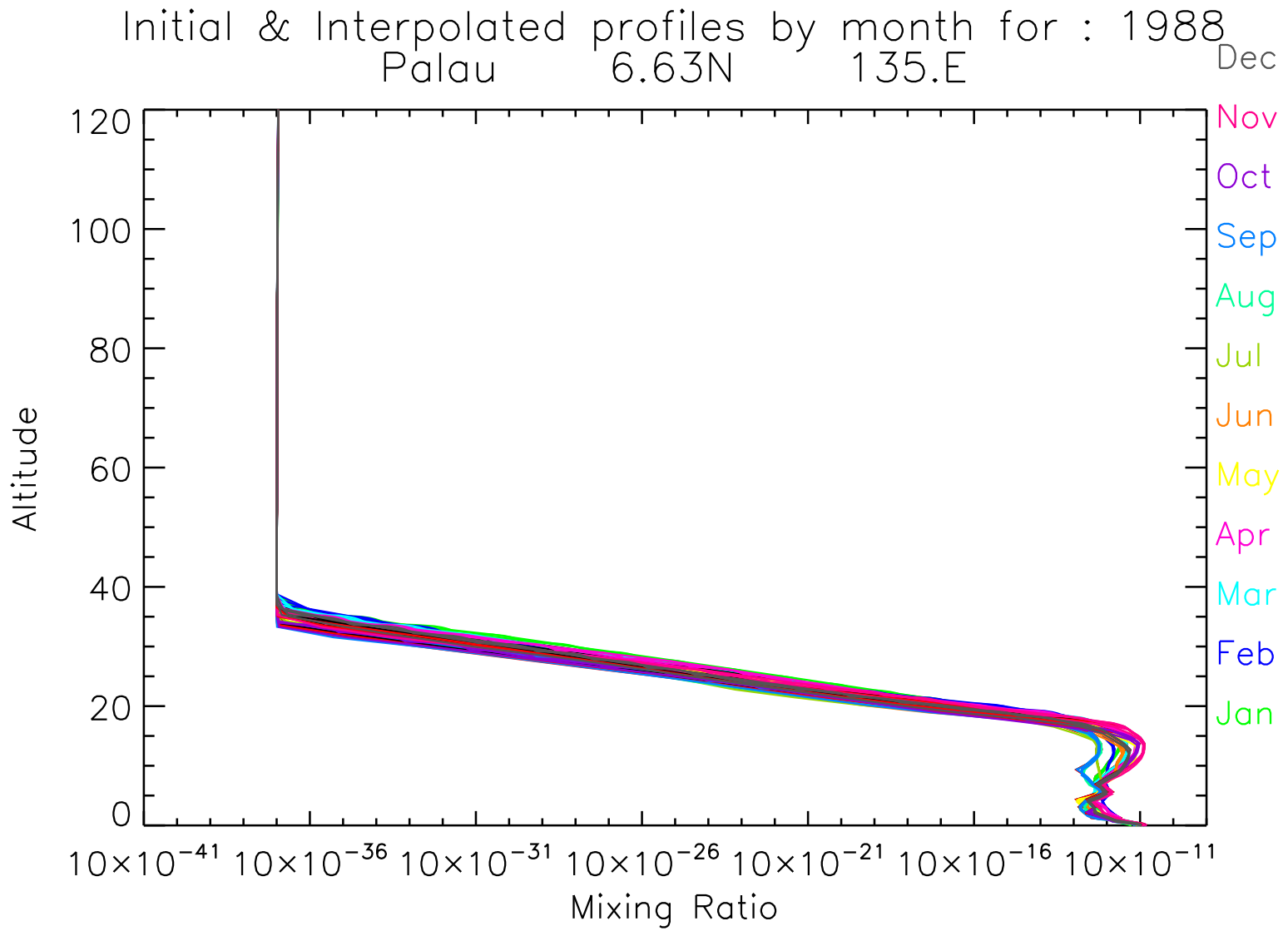
Mixing Ratio


Initial & Interpolated profiles by month for : 1988
Palau 6.63N 135.E
Dec
Nov
Oct
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Aug
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Jun
May
Apr
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Feb
Jan
Altitude
120
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0
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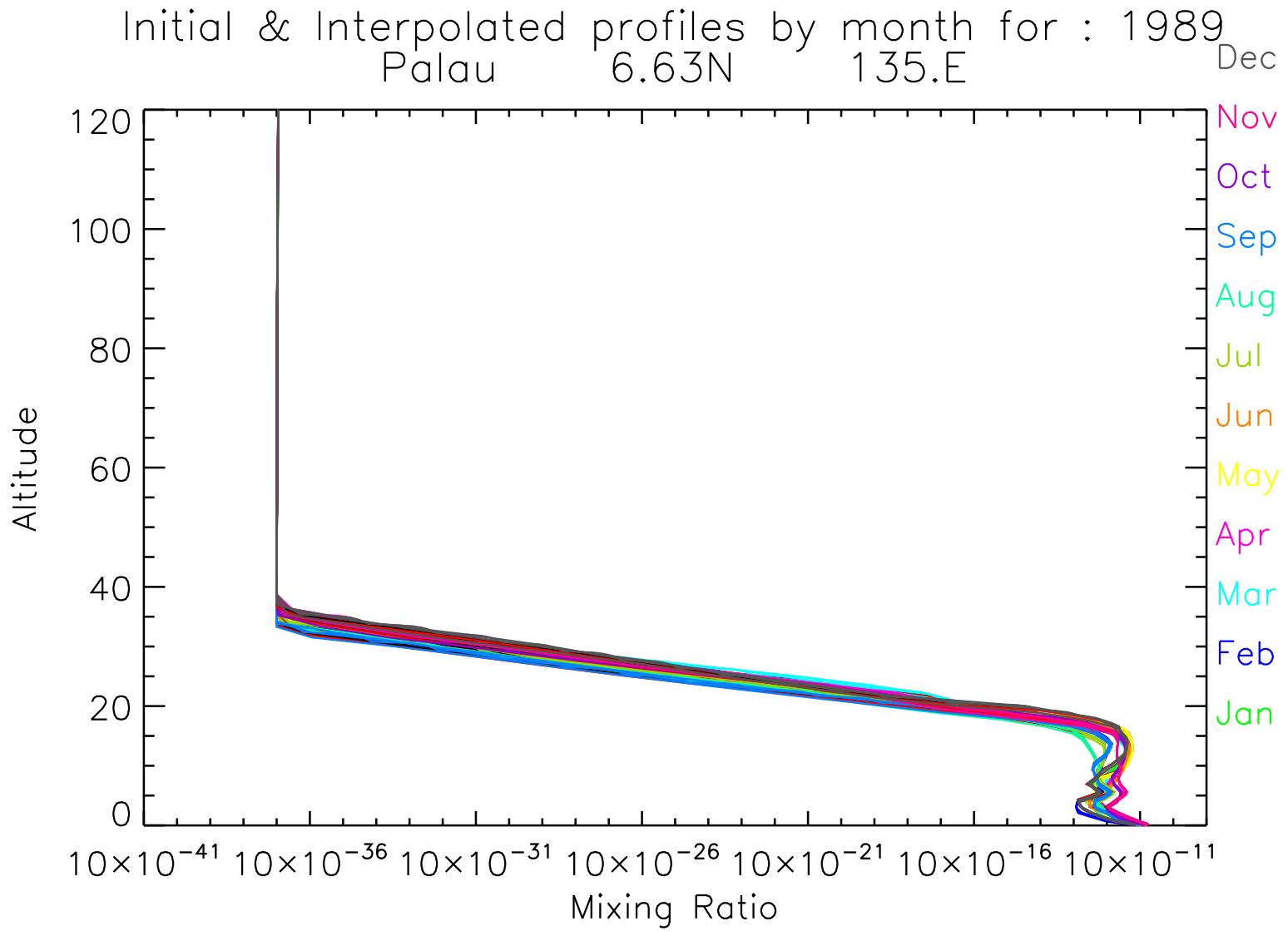
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
Palau 6.63N 135.E
Dec
Nov
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Apr
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Feb
Jan
Altitude
120
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0
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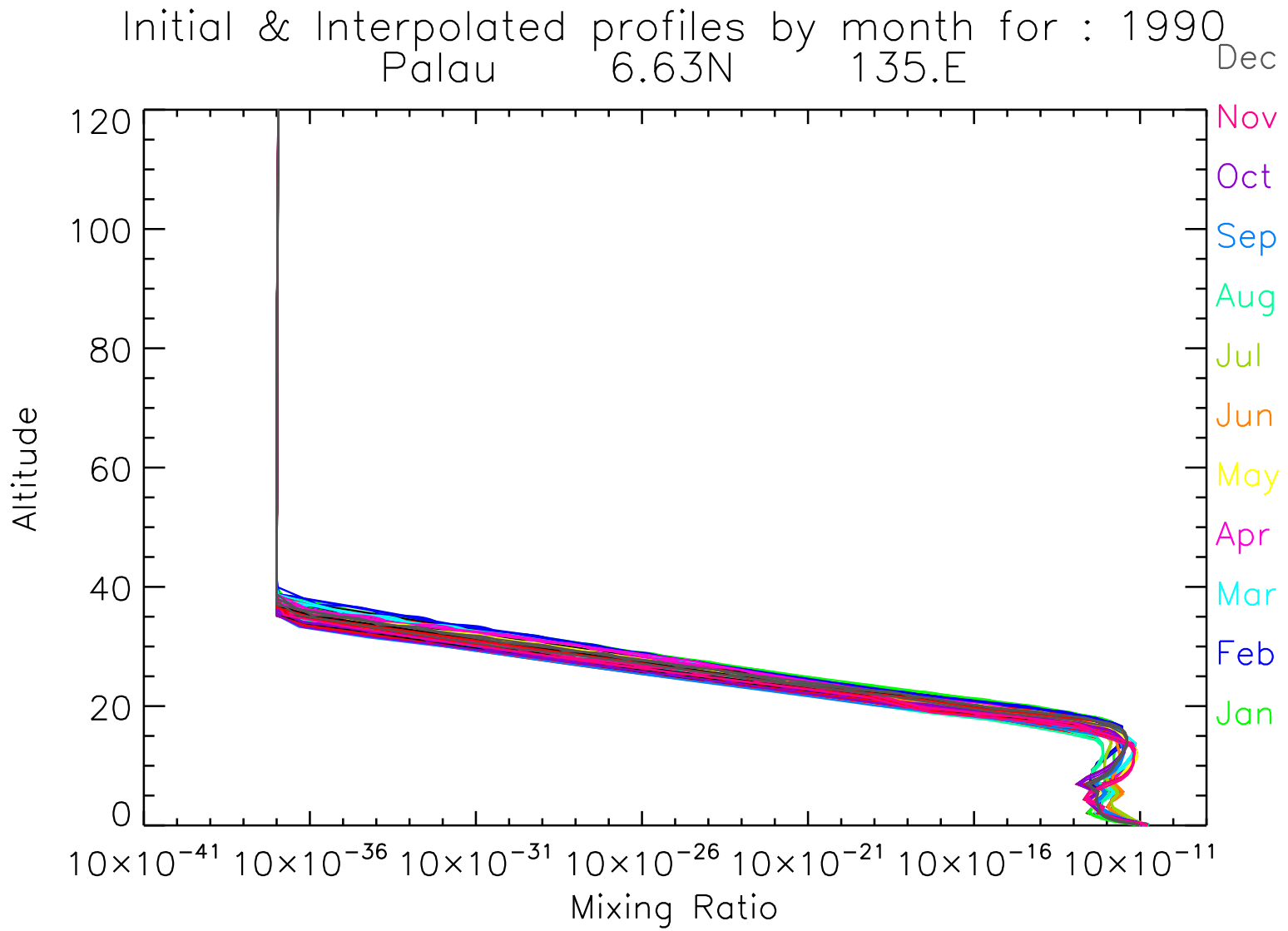
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
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May
Apr
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Feb
Jan
Altitude
120
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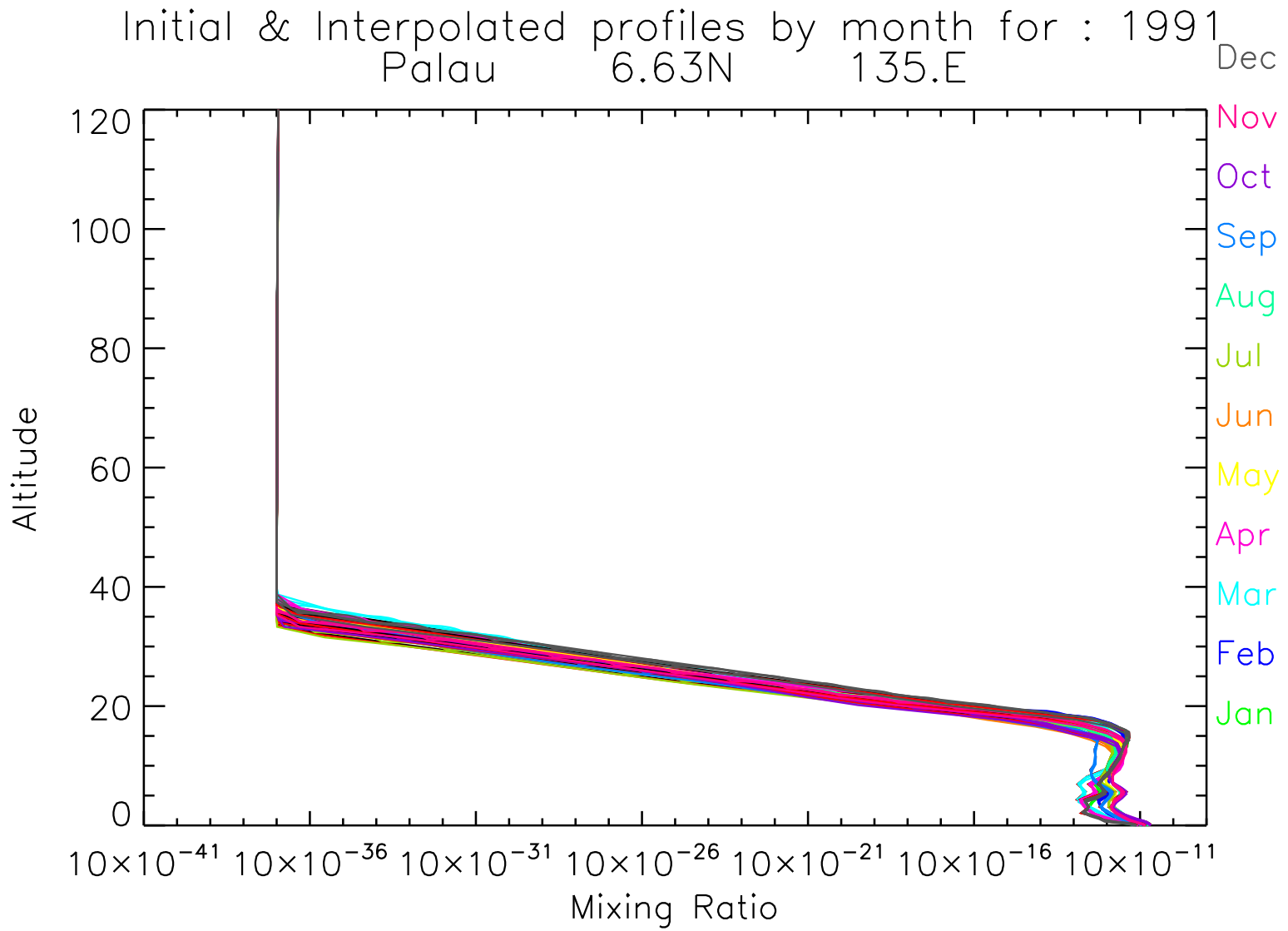
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1991
Palau 6.63N 135.E
Dec
Nov
Oct
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Aug
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Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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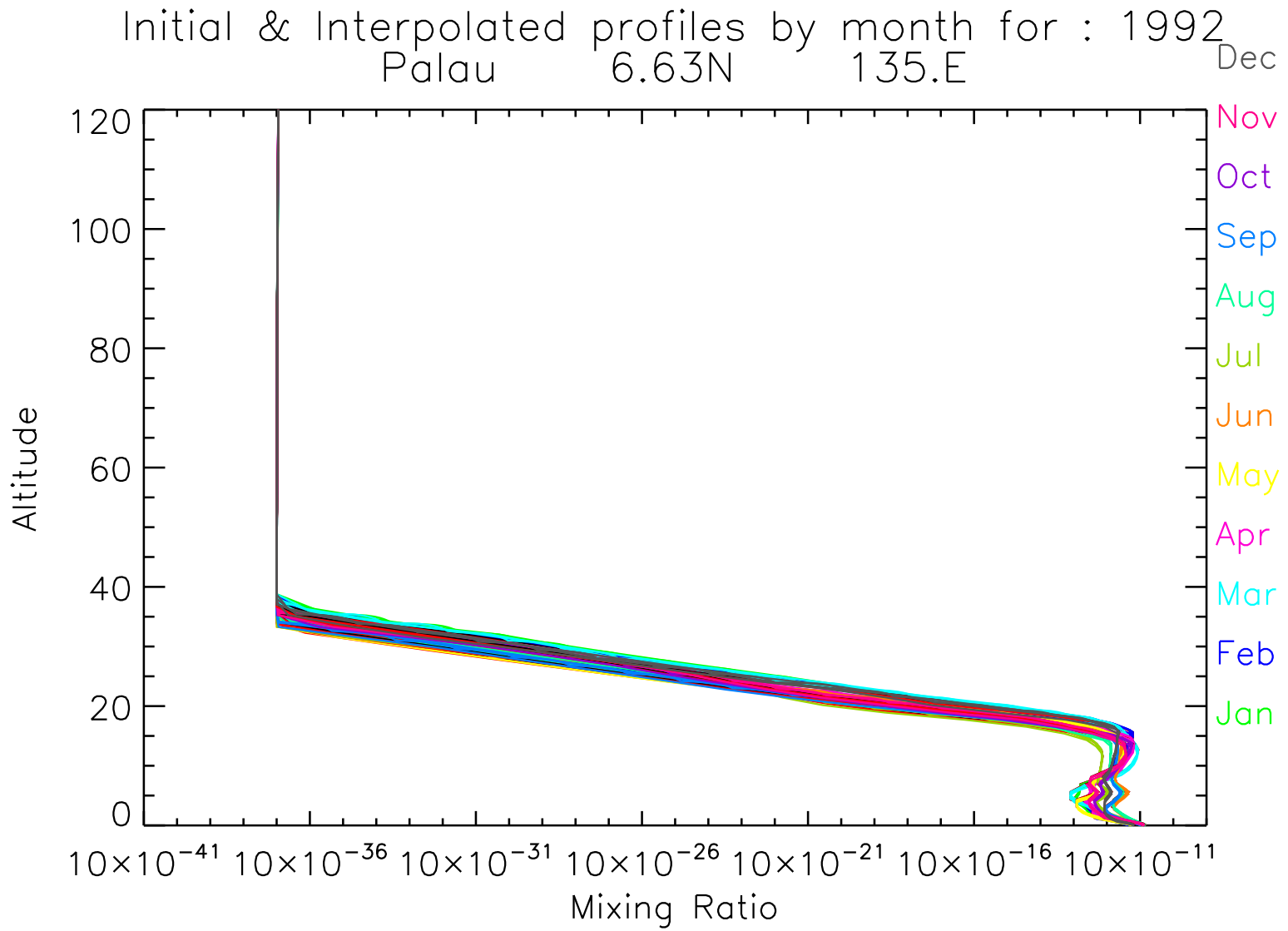
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
Palau 6.63N 135.E
Dec
Nov
Oct
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Aug
Jul
Jun
May
Apr
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Feb
Jan
Altitude
120
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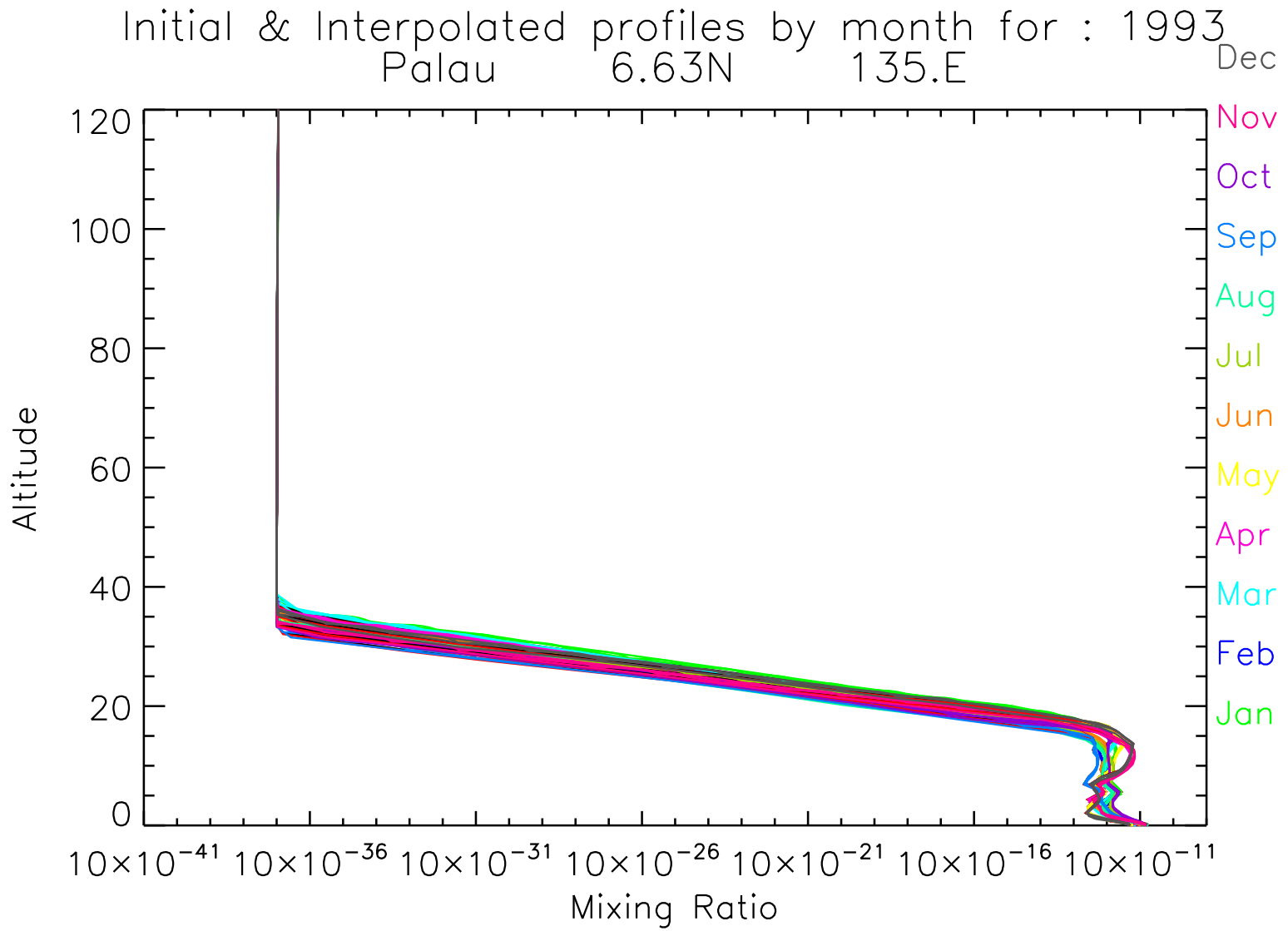
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1993
Palau 6.63N 135.E
Dec
Nov
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May
Apr
Mar
Feb
Jan
Altitude
120
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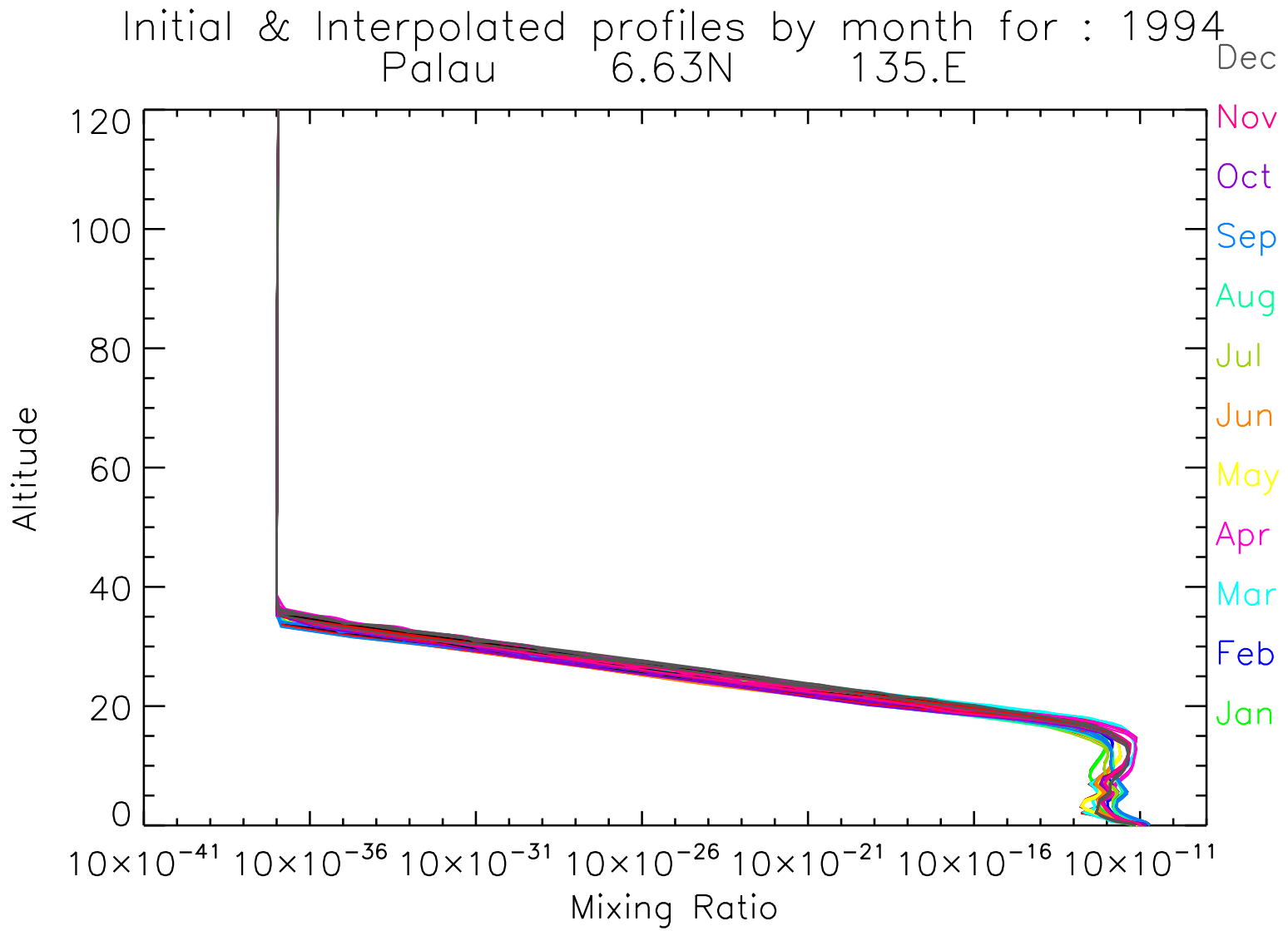
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1994
Palau 6.63N 135.E
Dec
Nov
Oct
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Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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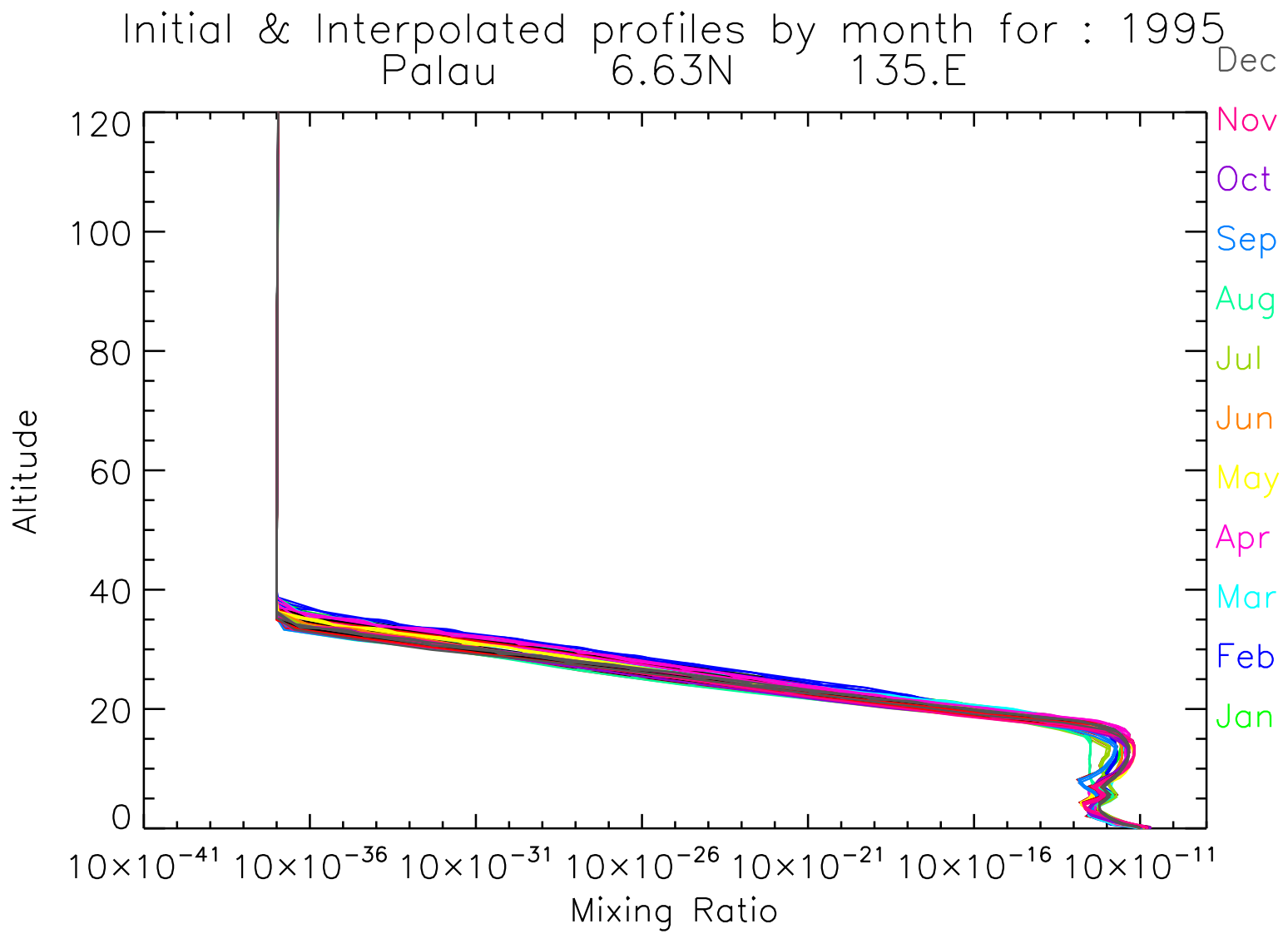
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1995
Palau 6.63N 135.E
Dec
Nov
Oct
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Aug
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Jun
May
Apr
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Feb
Jan
Altitude
120
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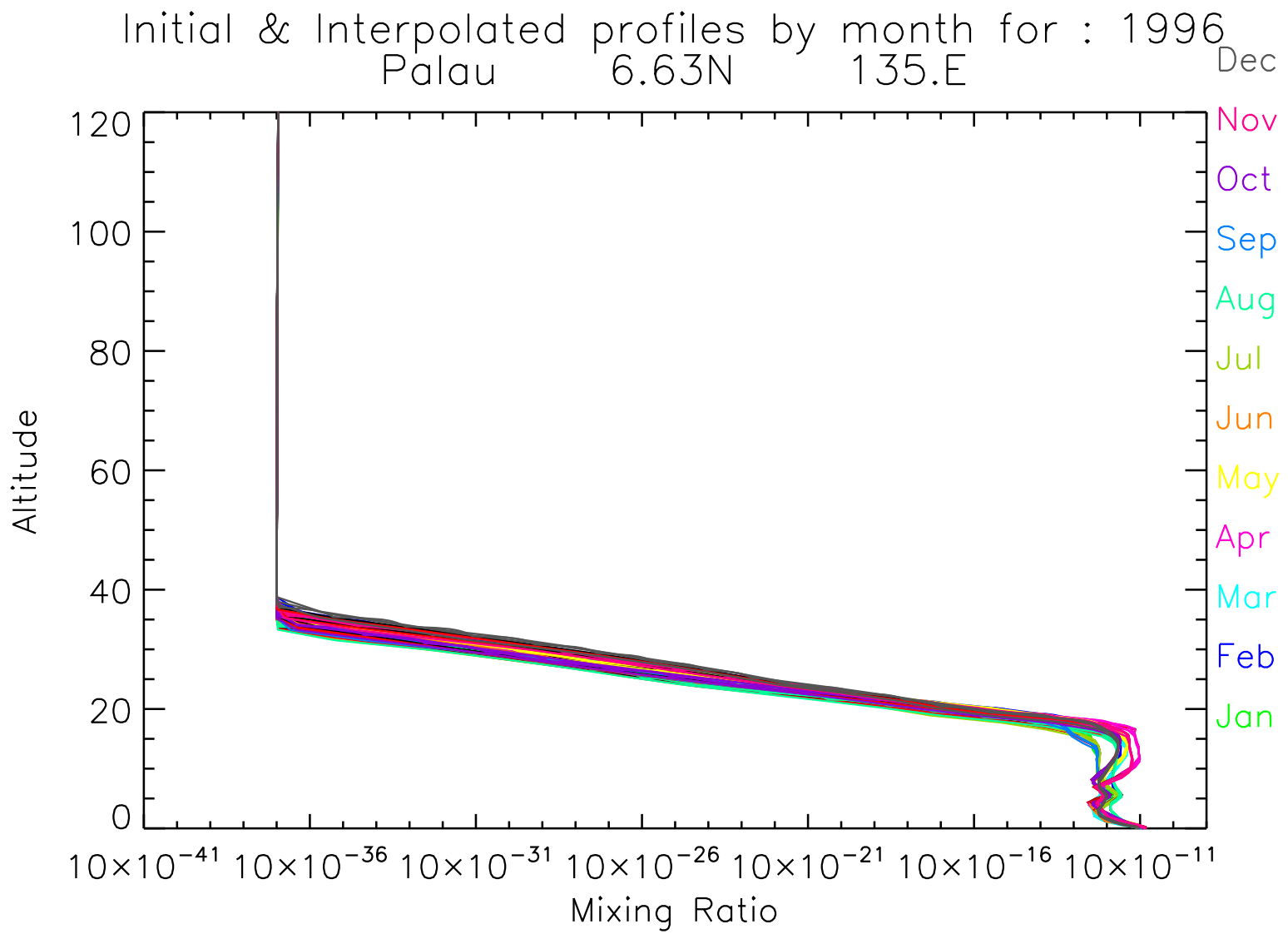
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1996
Palau 6.63N 135.E
Dec
Nov
Oct
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Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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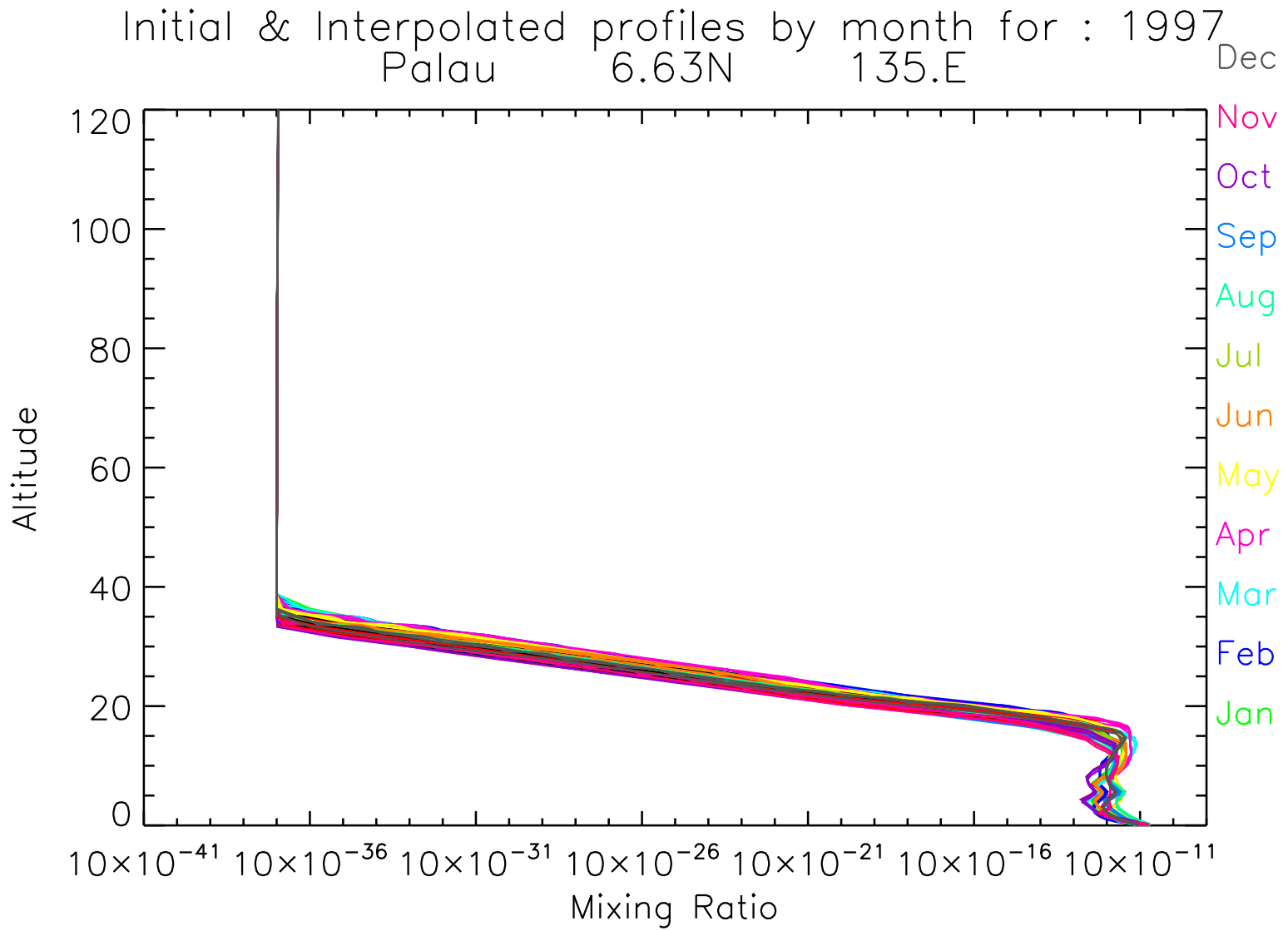
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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60
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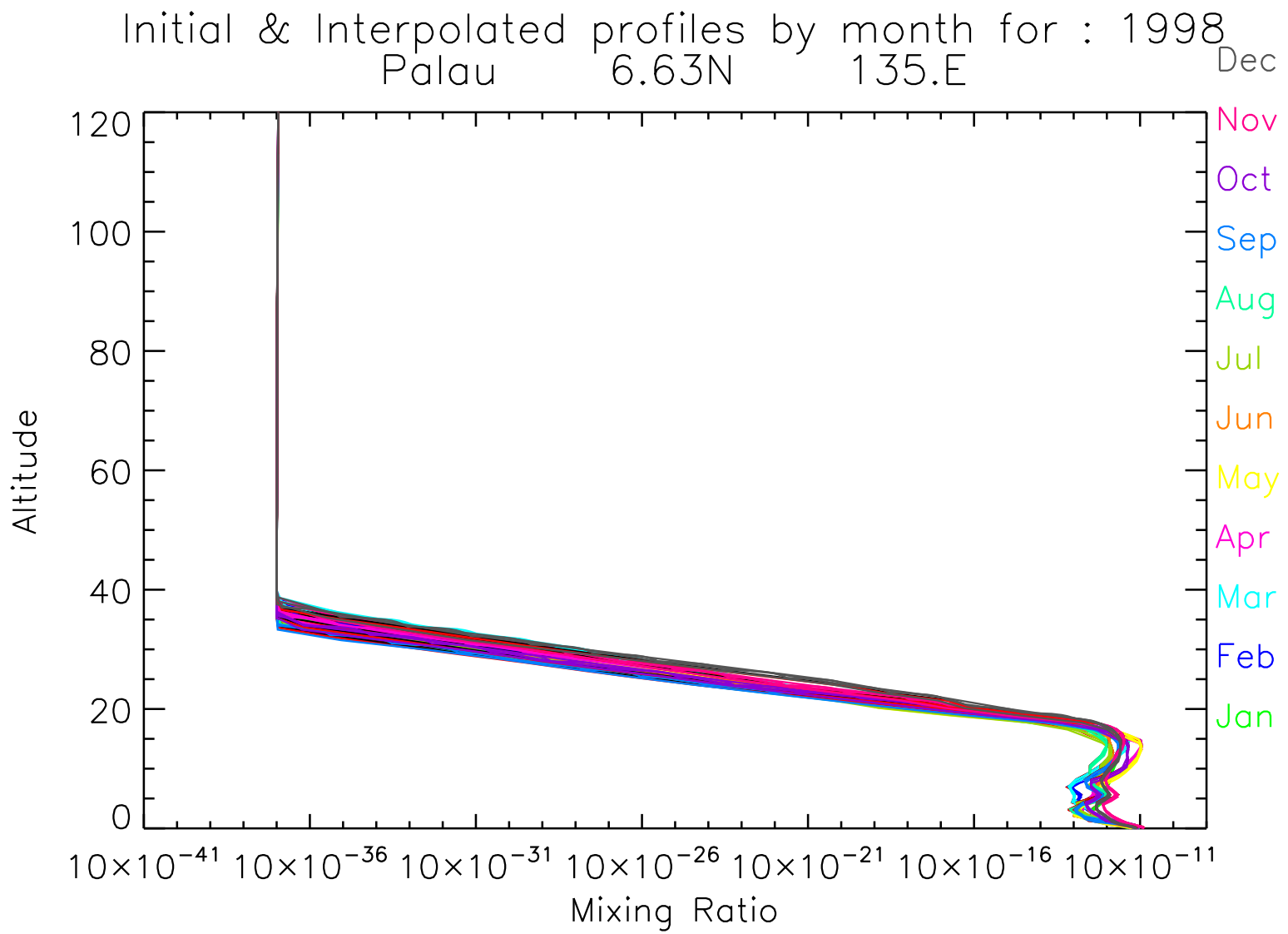
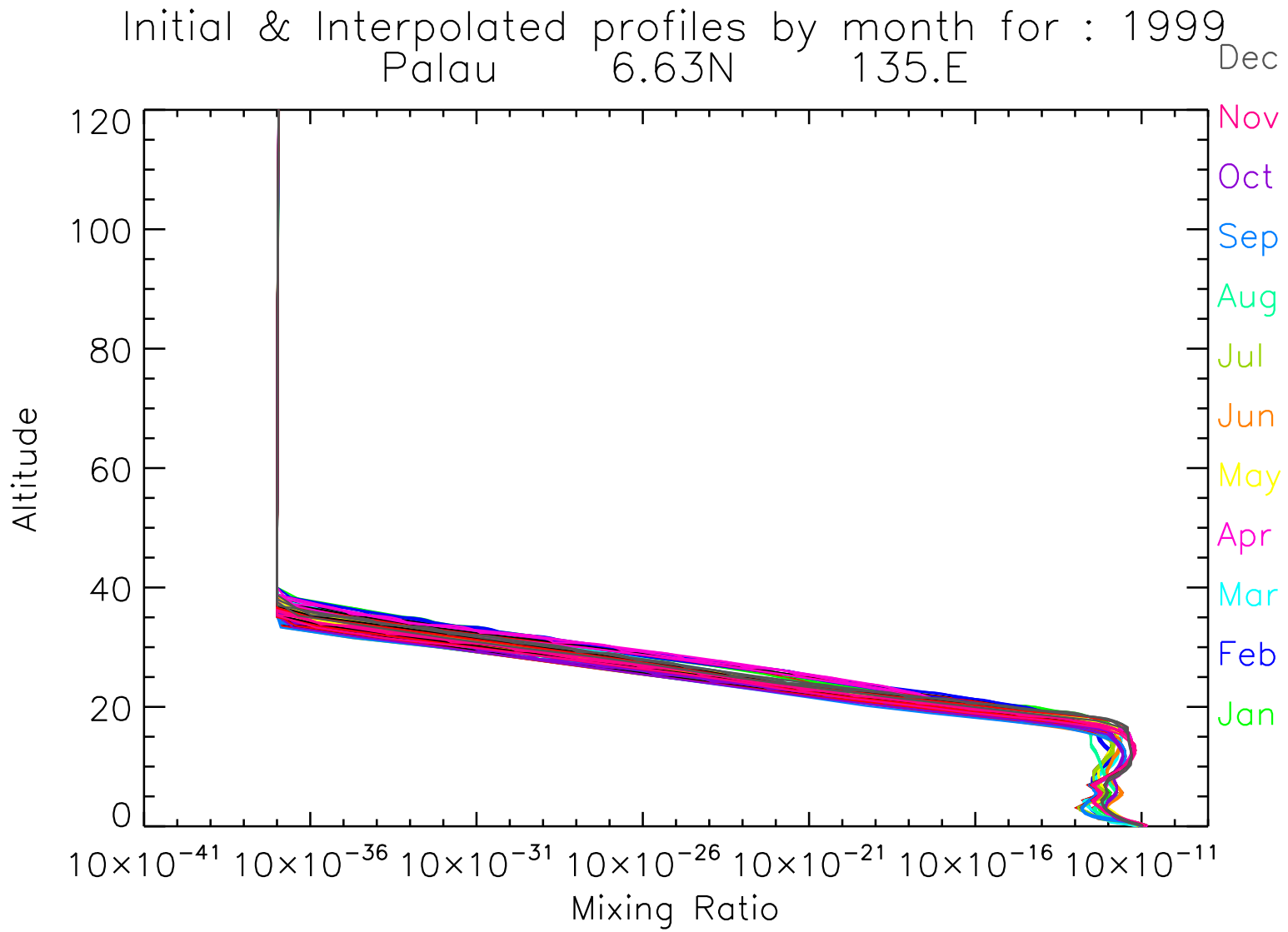
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 1999
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
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20
0
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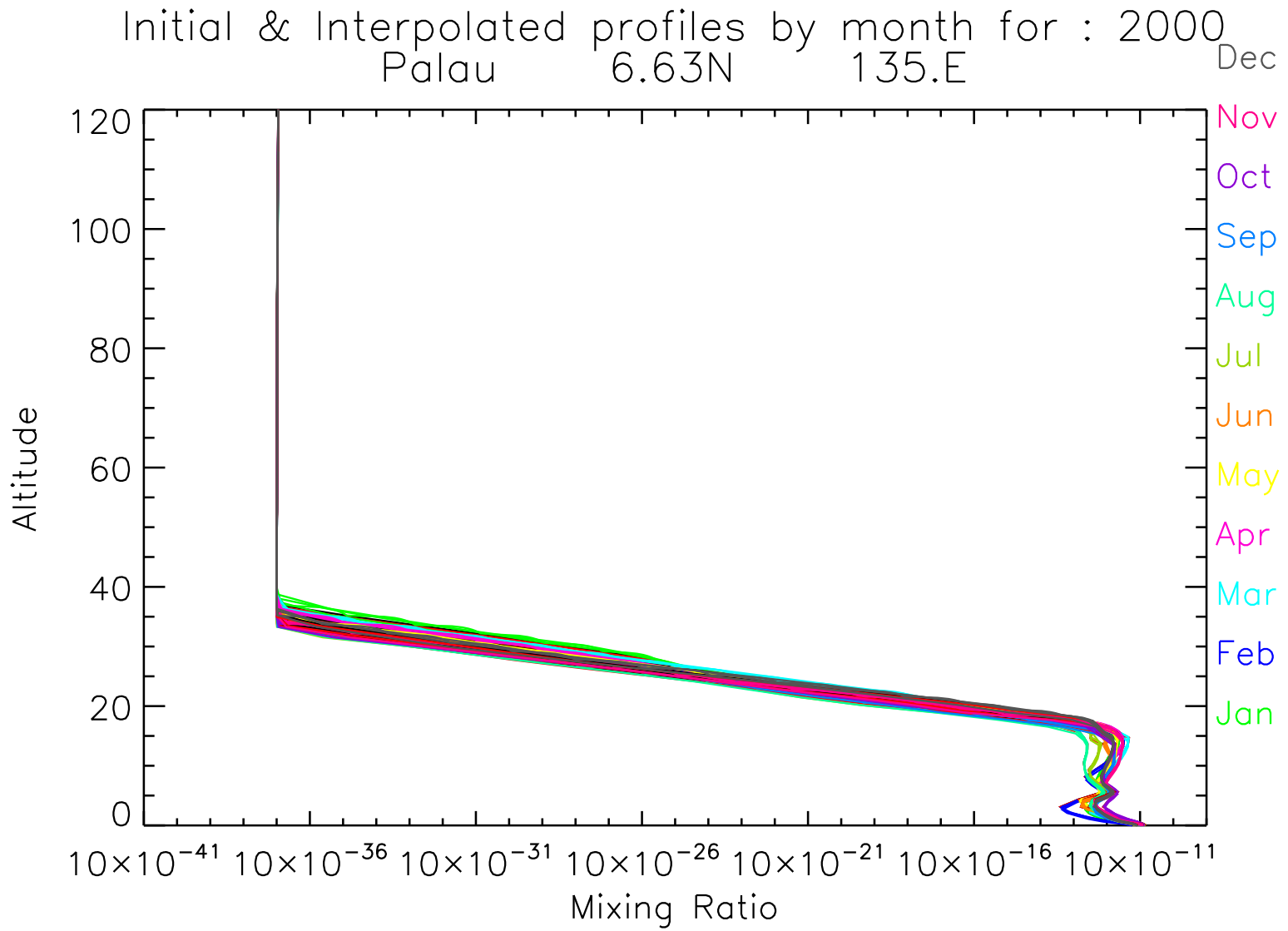
Mixing Ratio


Initial & Interpolated profiles by month for : 2000
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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20
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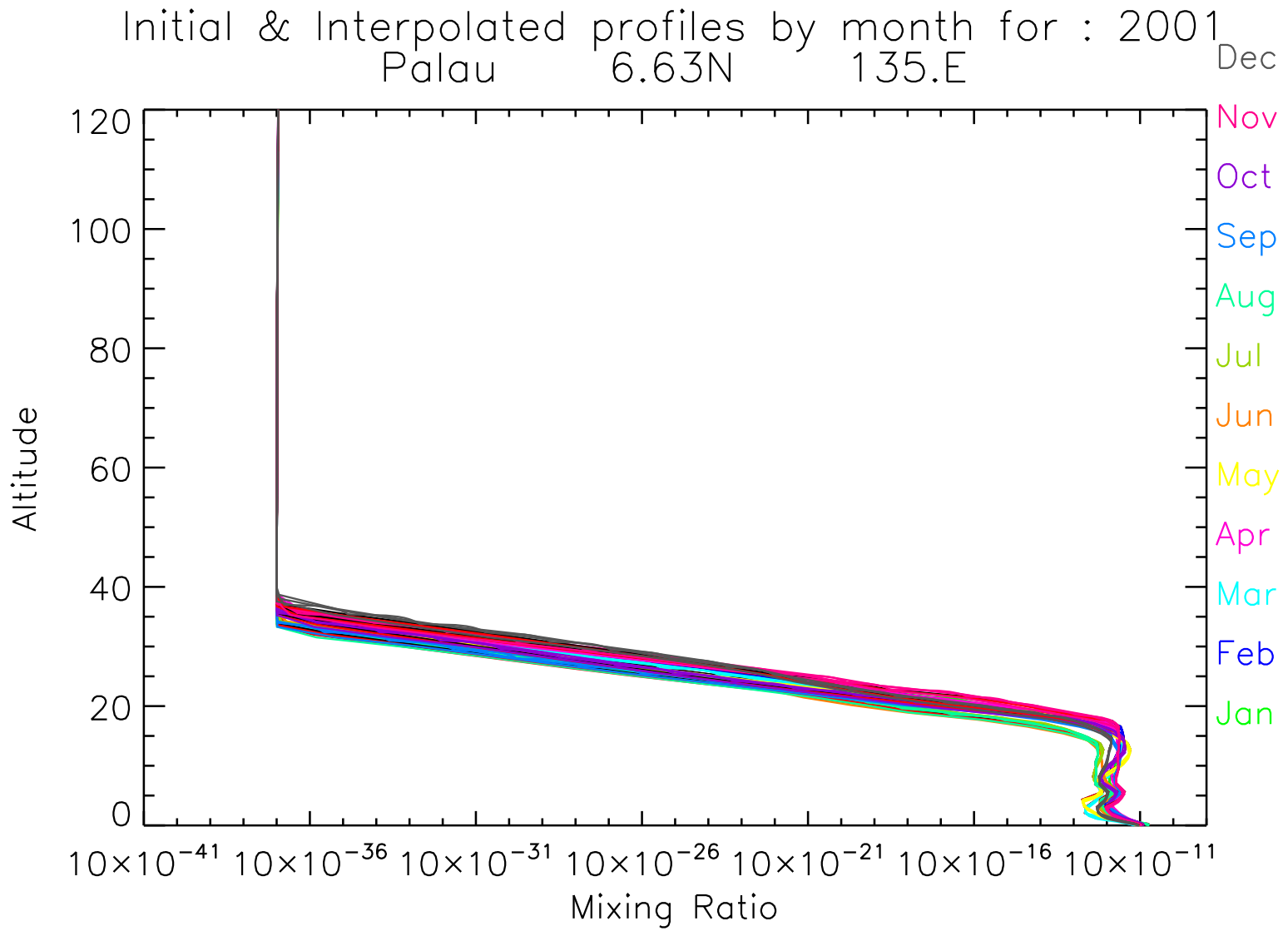
Mixing Ratio


Initial & Interpolated profiles by month for : 2001
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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60
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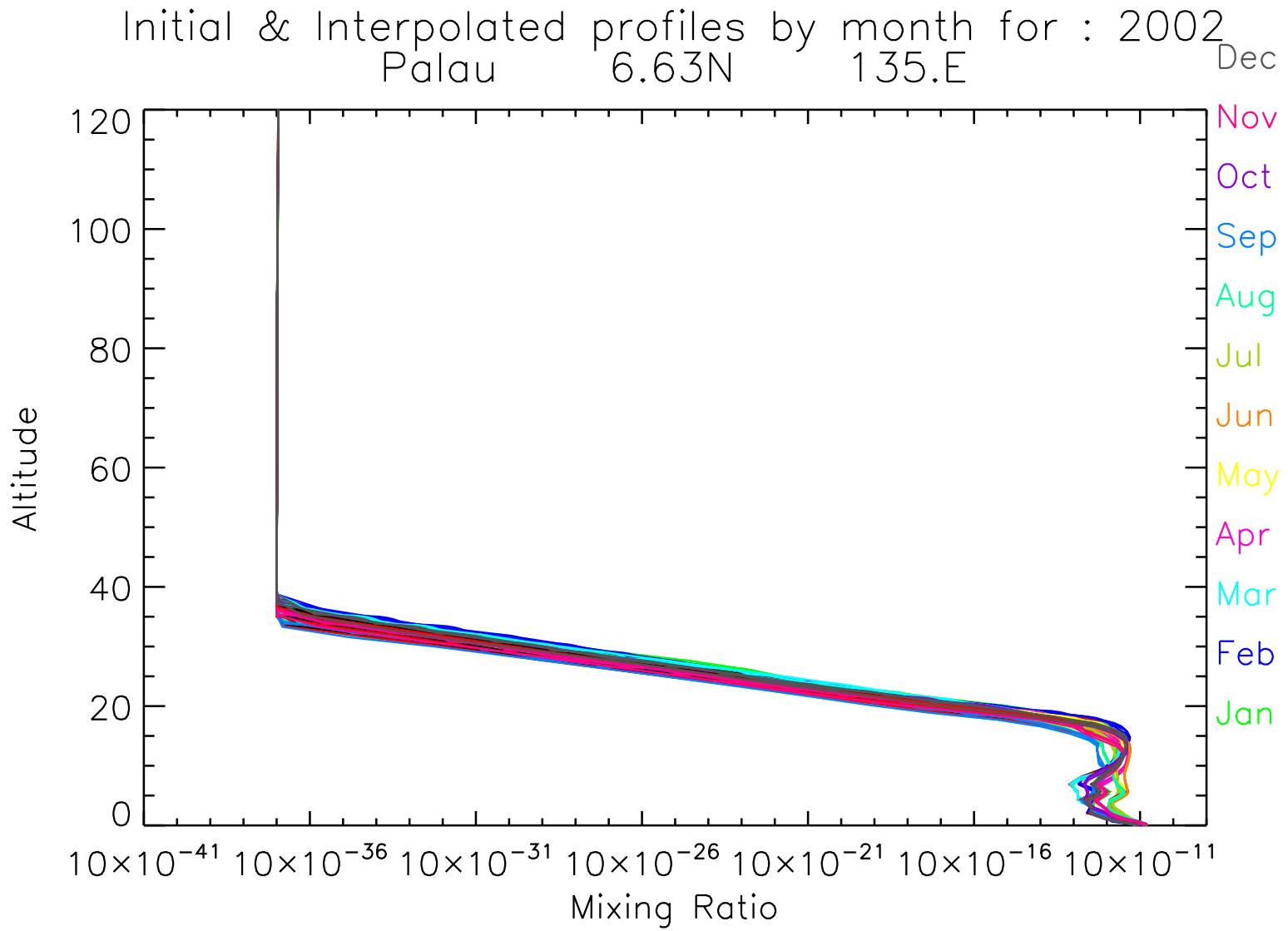
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2002
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
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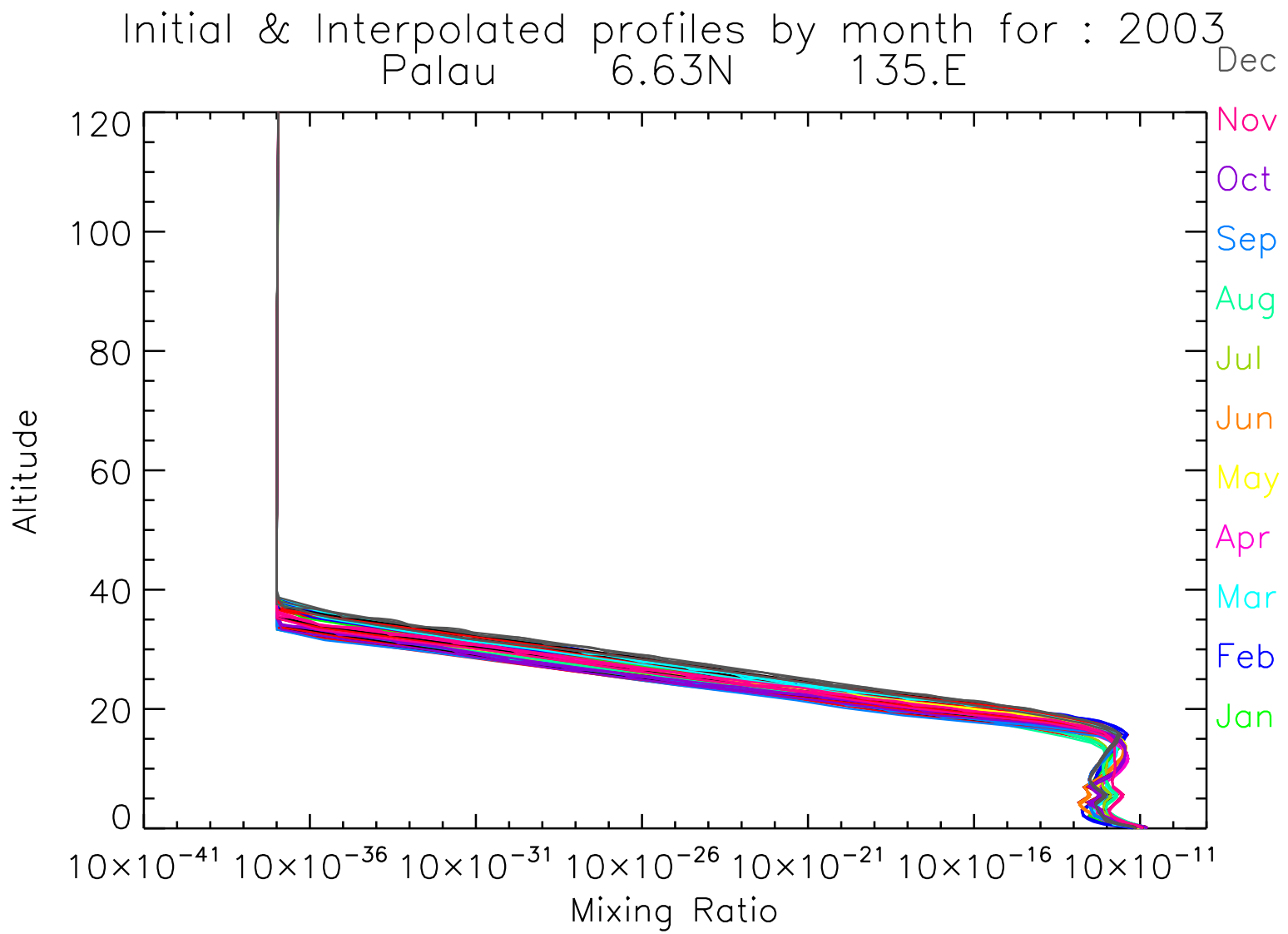
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2003
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
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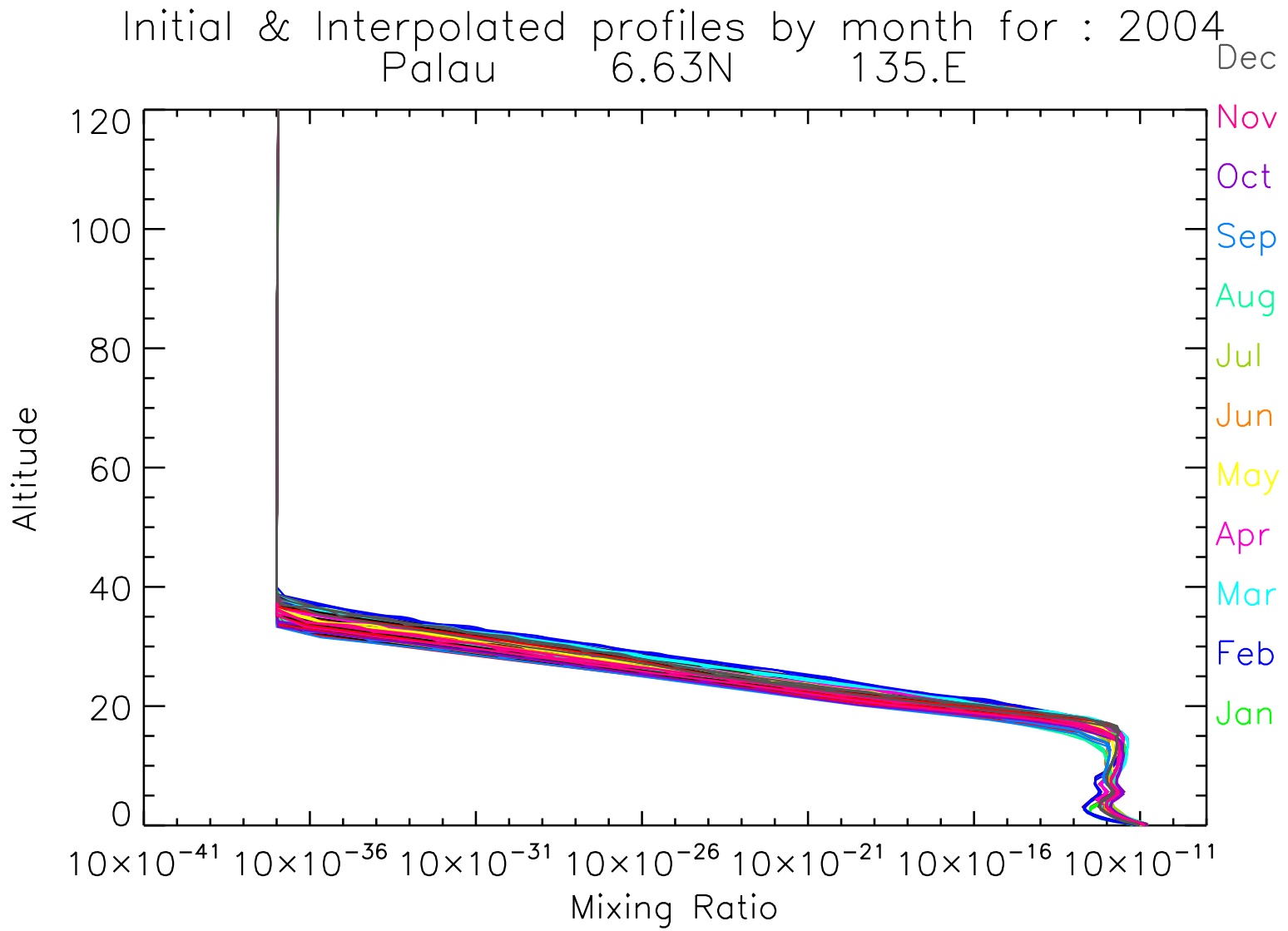
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
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20
0
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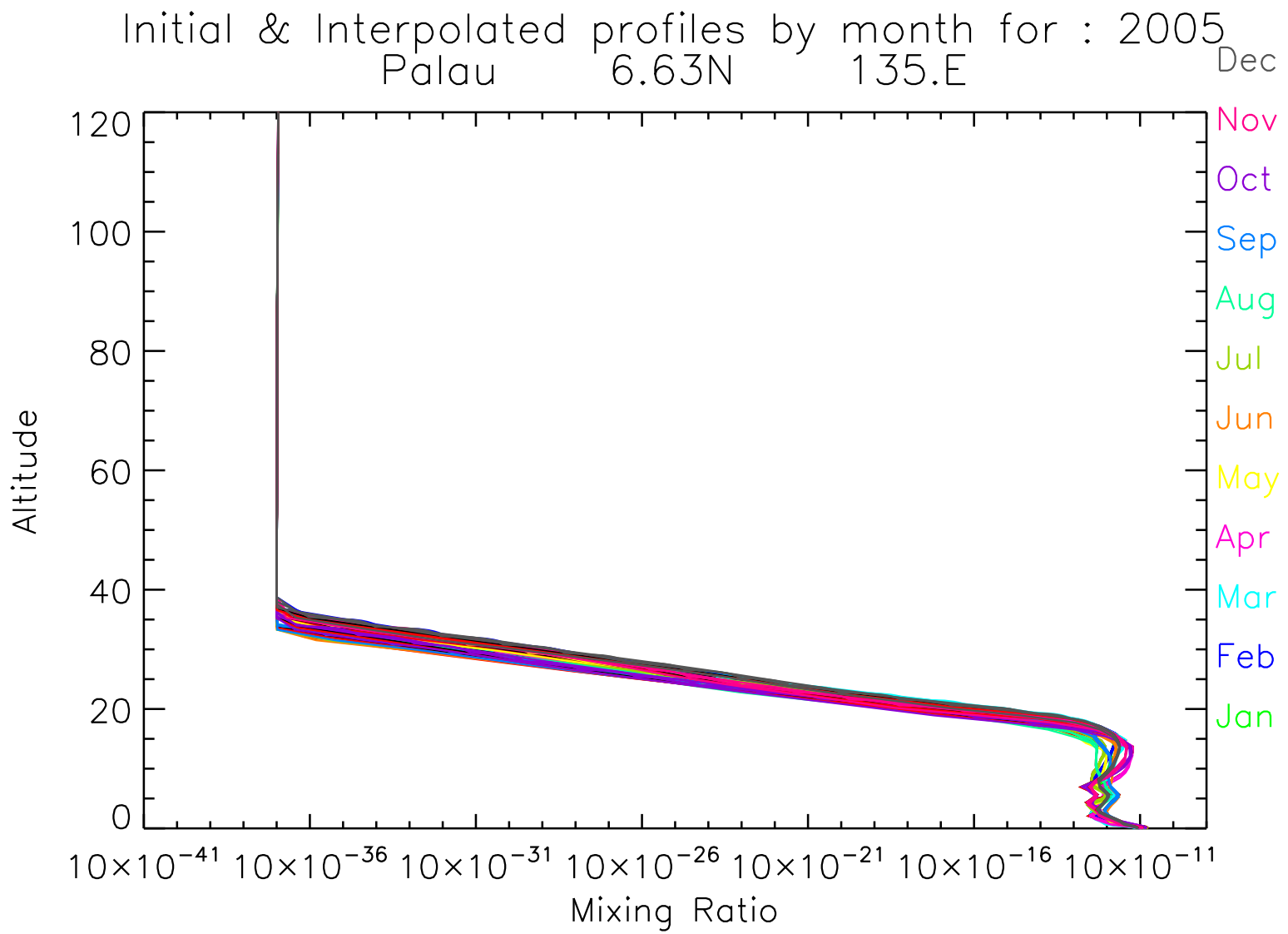
Mixing Ratio


Initial & Interpolated profiles by month for : 2005
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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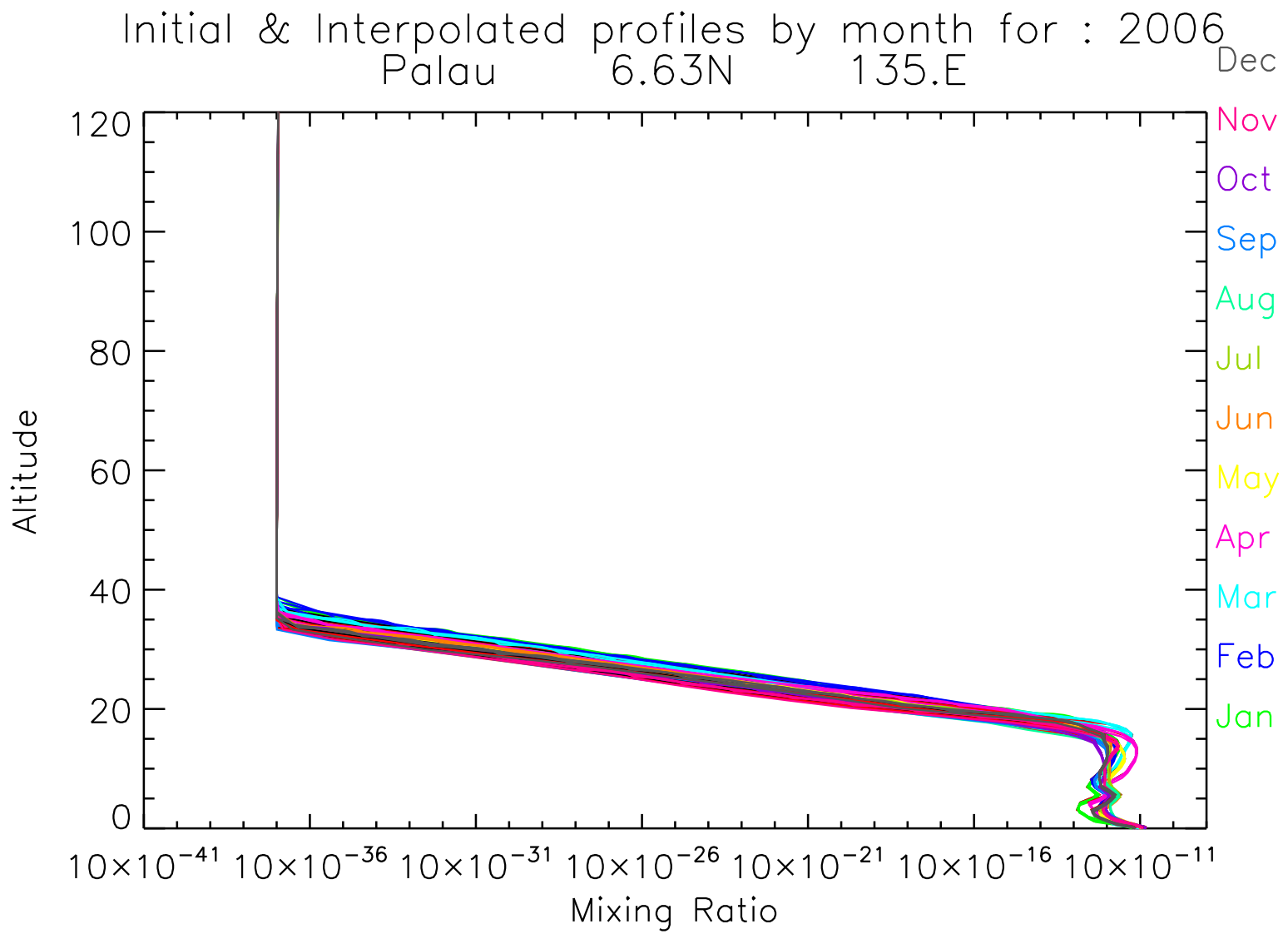
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
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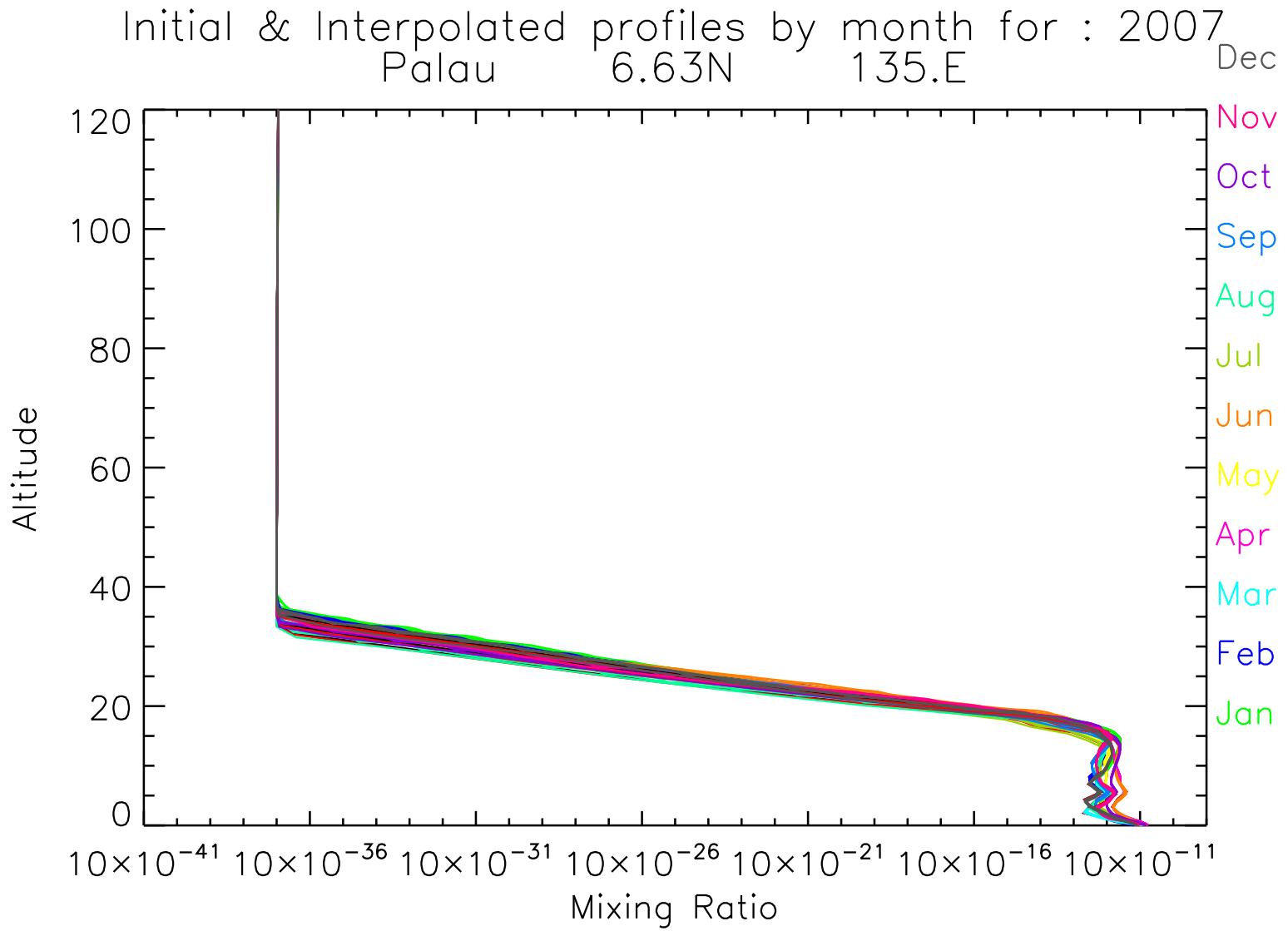
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2007
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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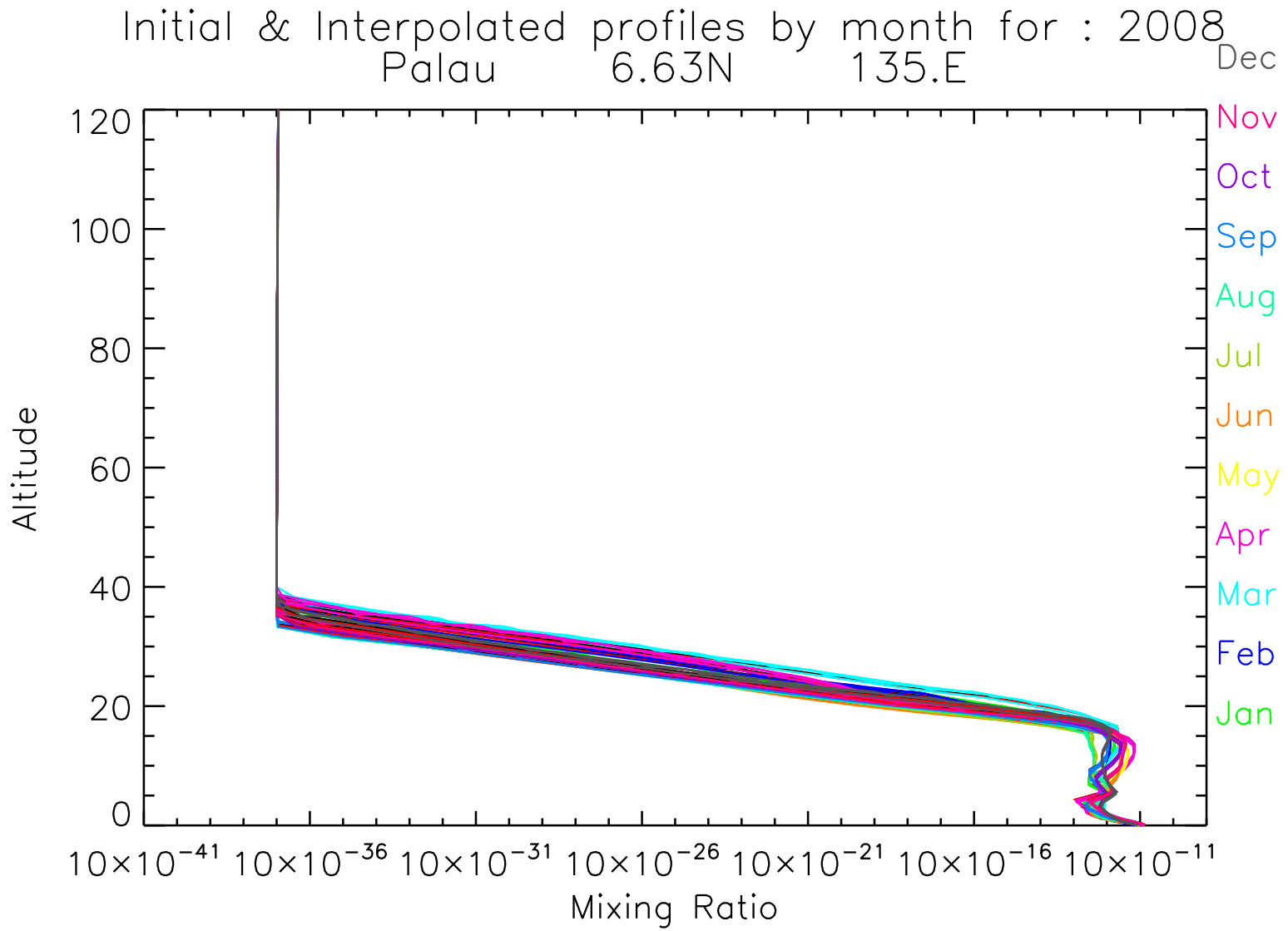
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2008
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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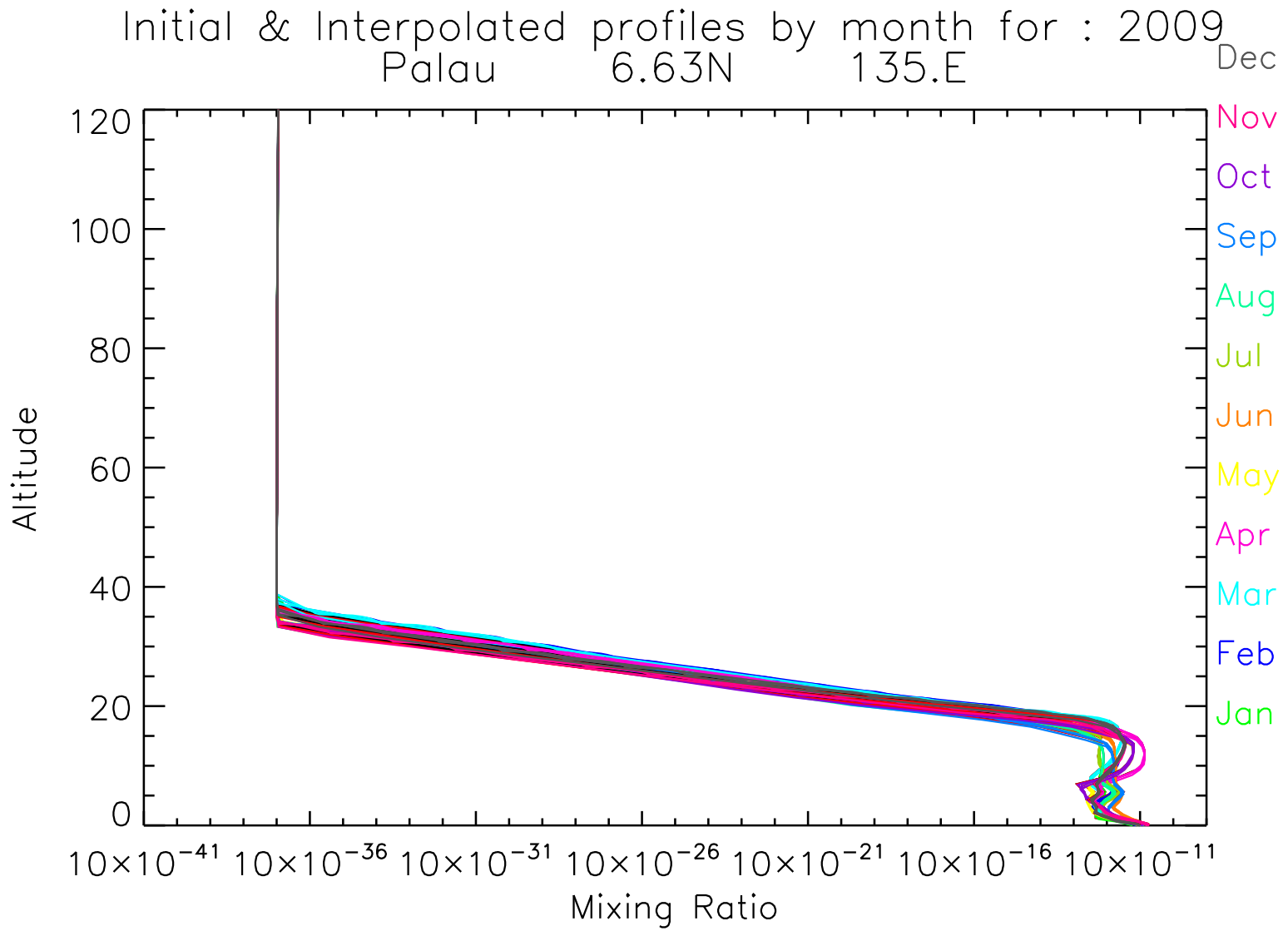
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2009
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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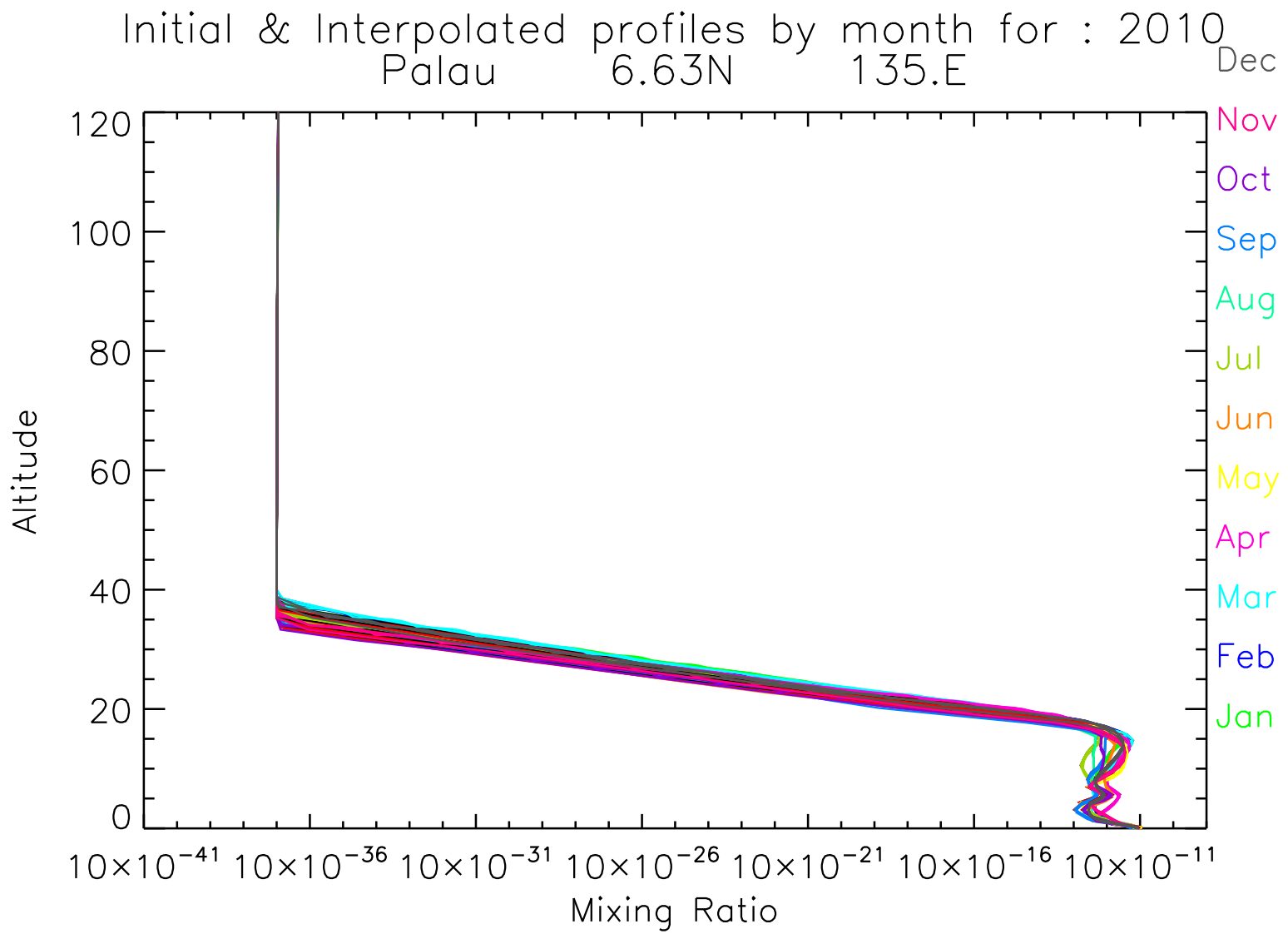
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Initial & Interpolated profiles by month for : 2010
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
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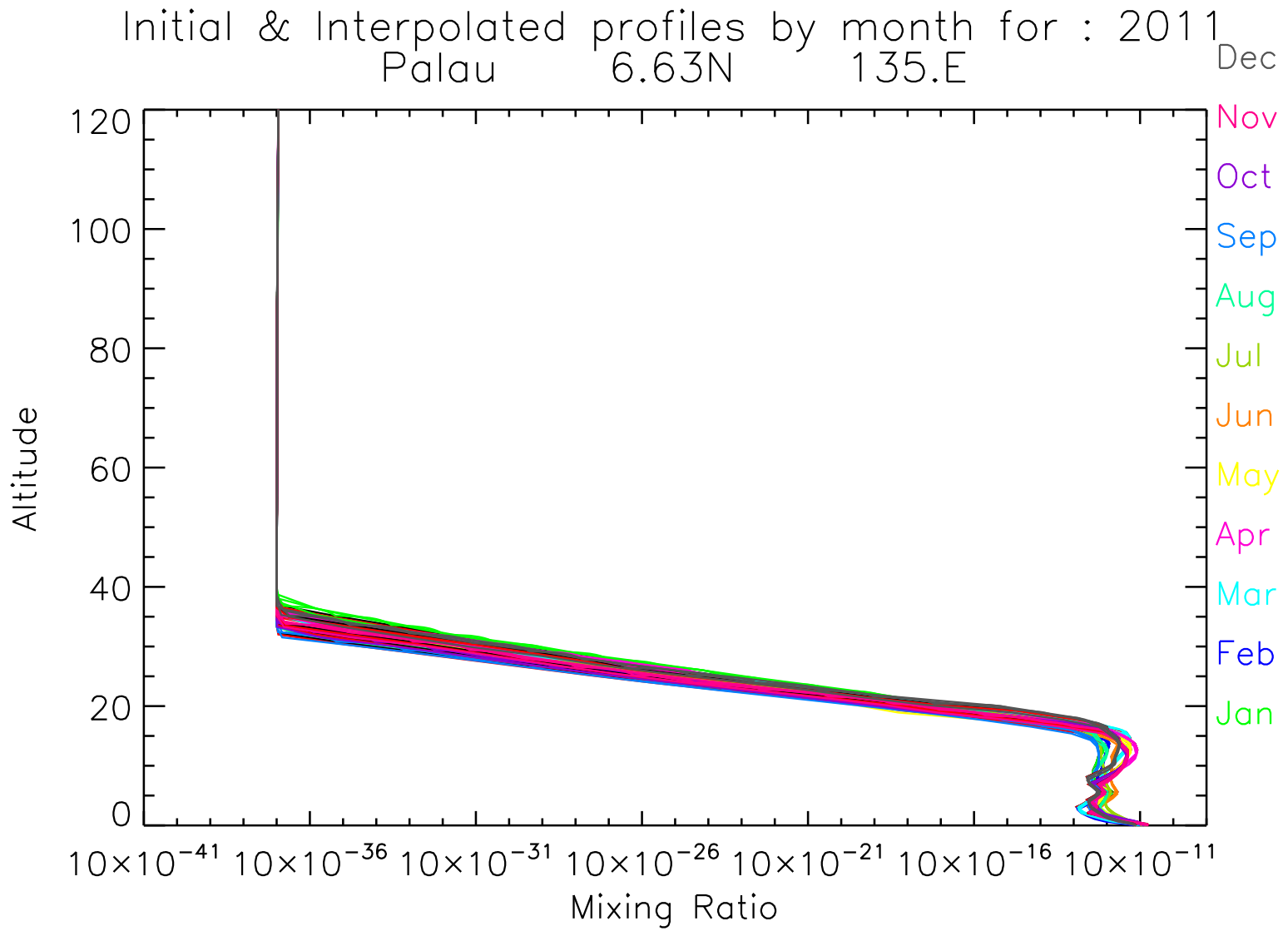
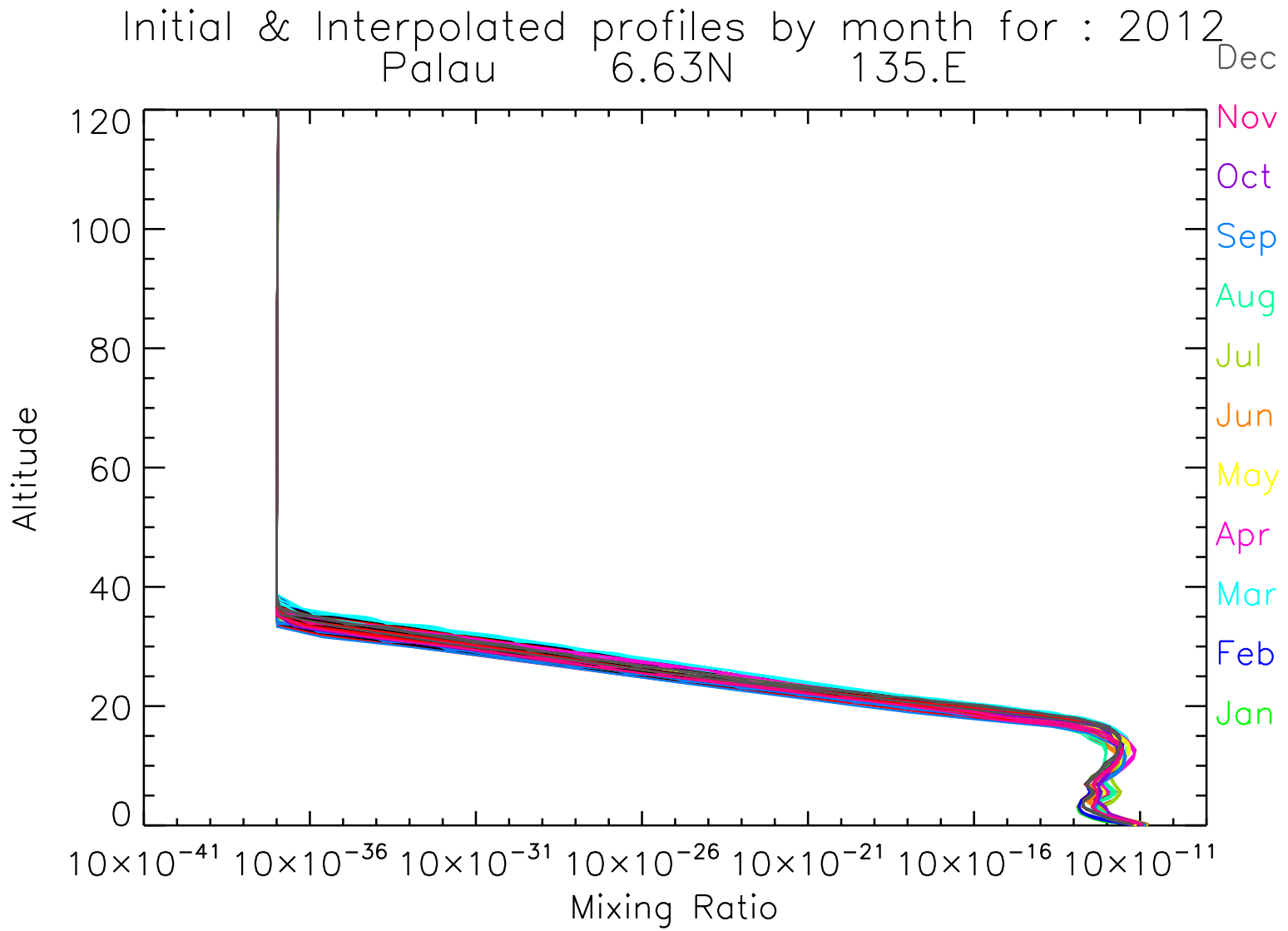
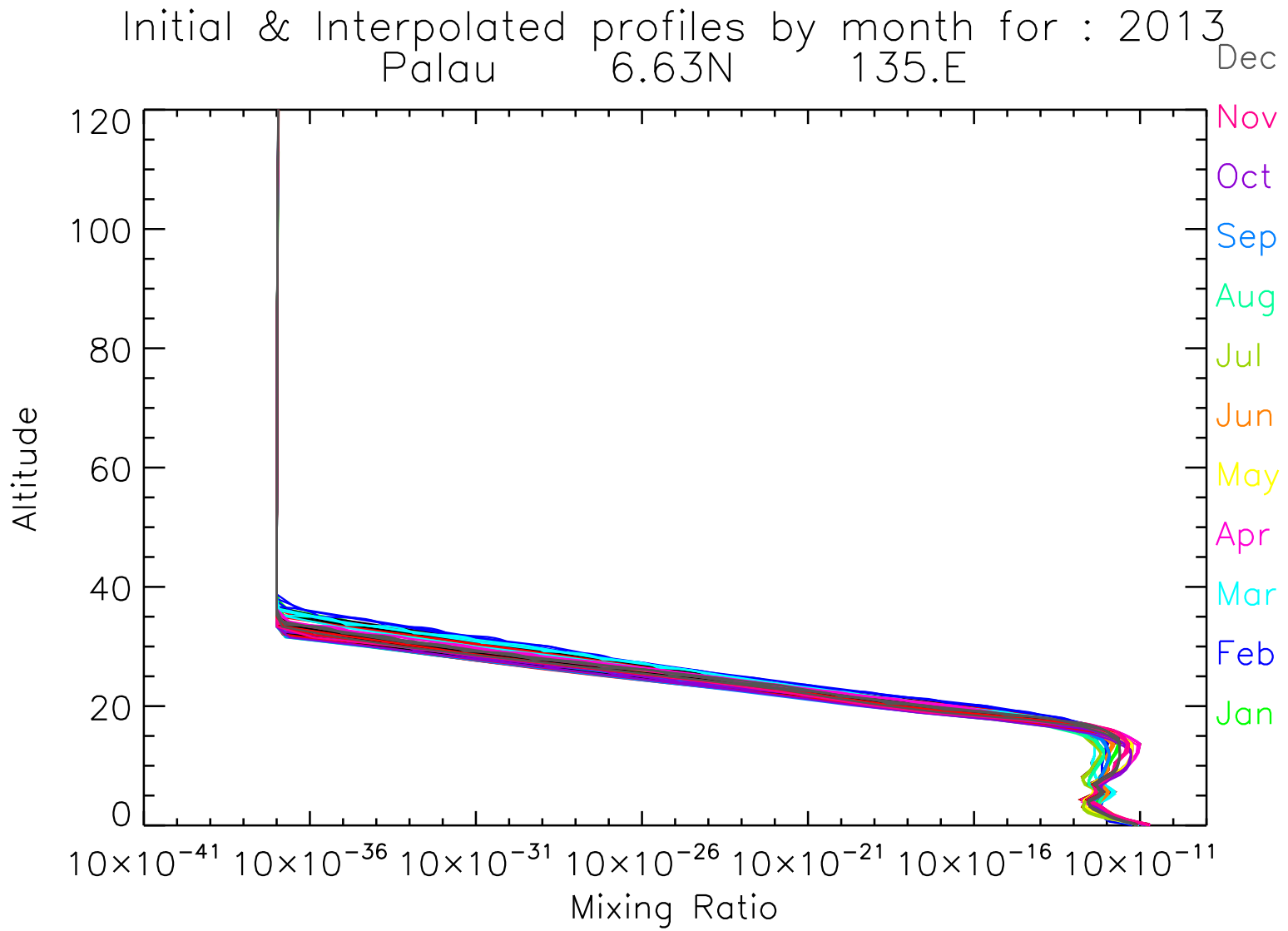
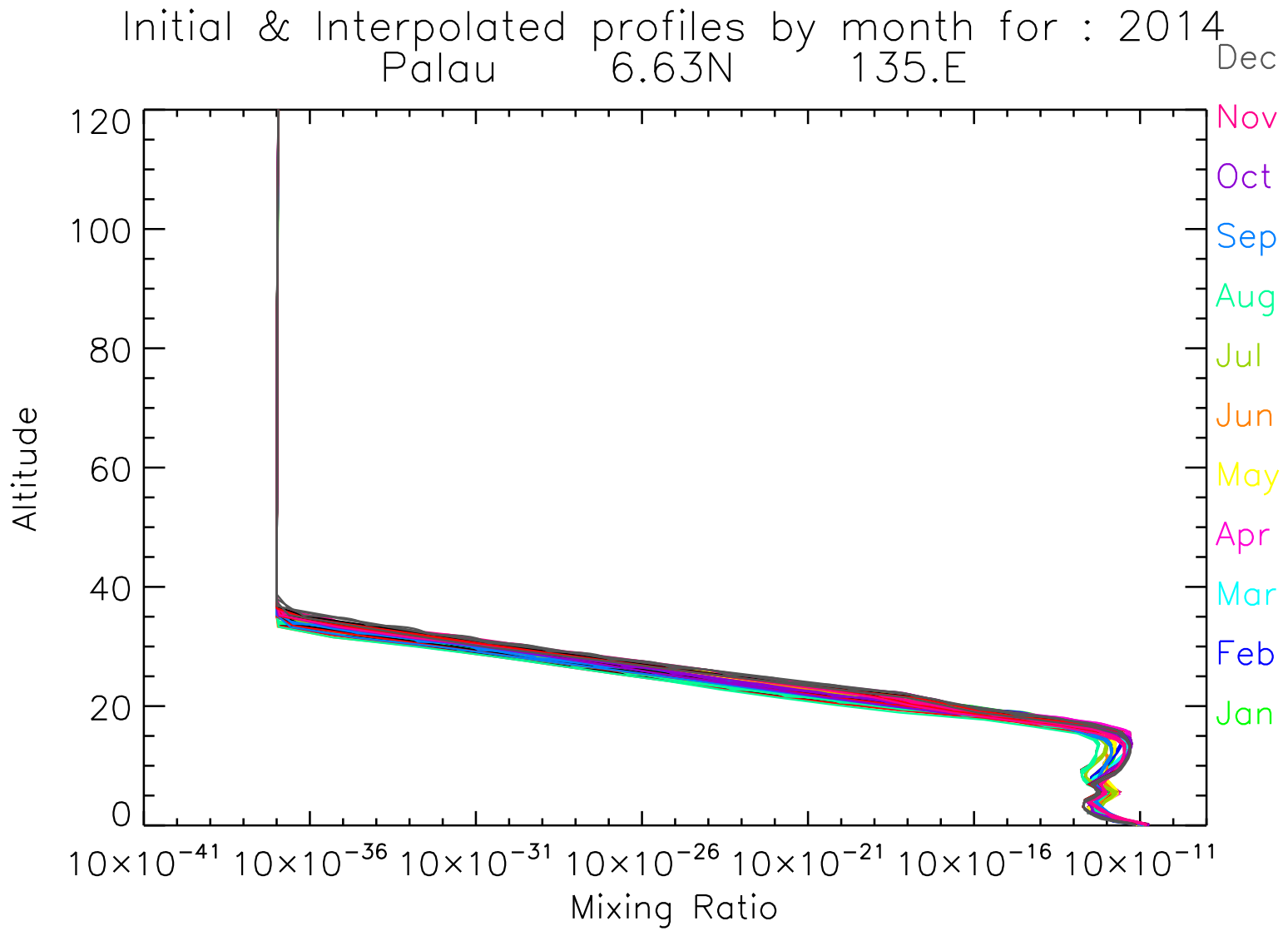
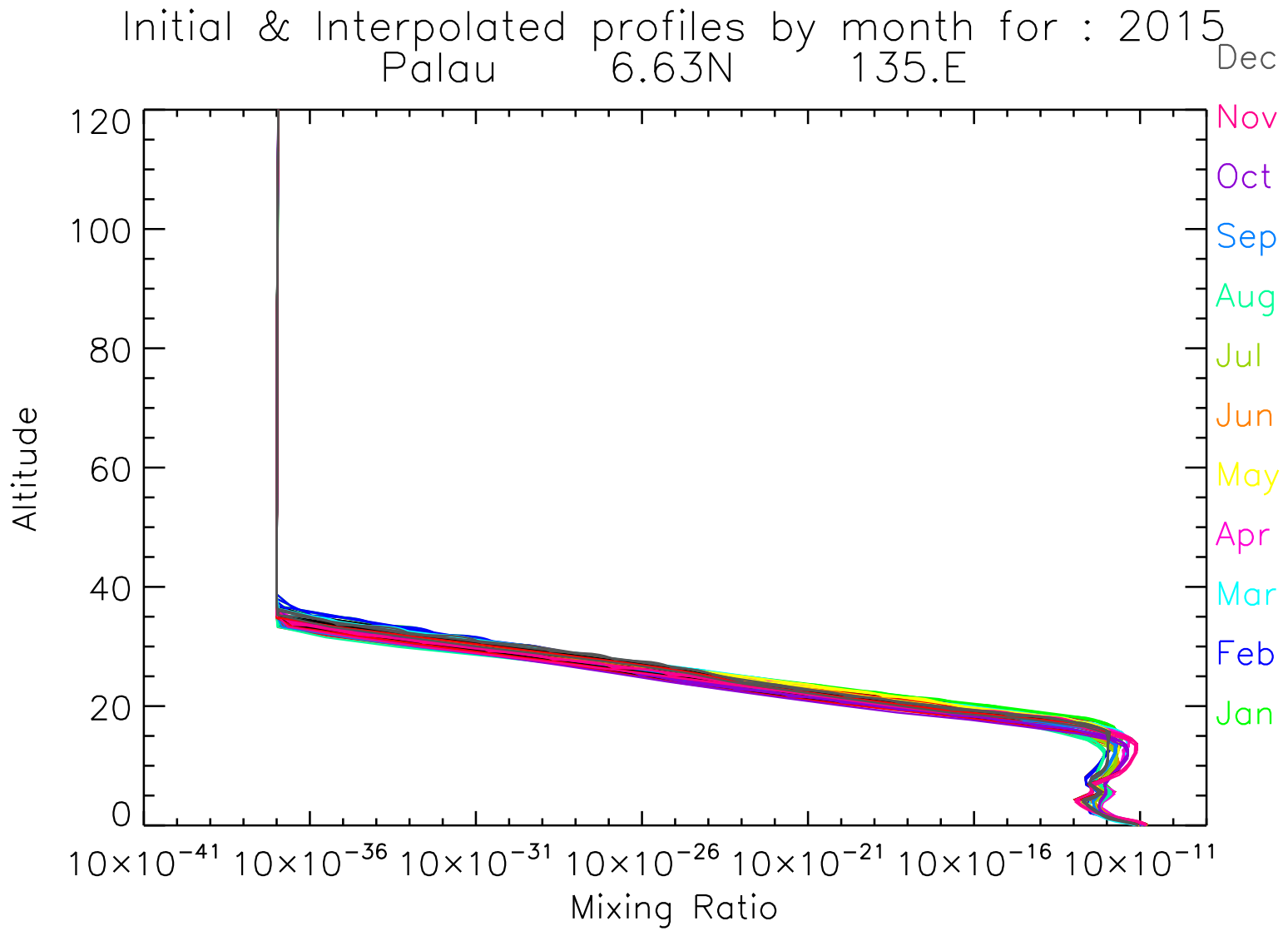
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

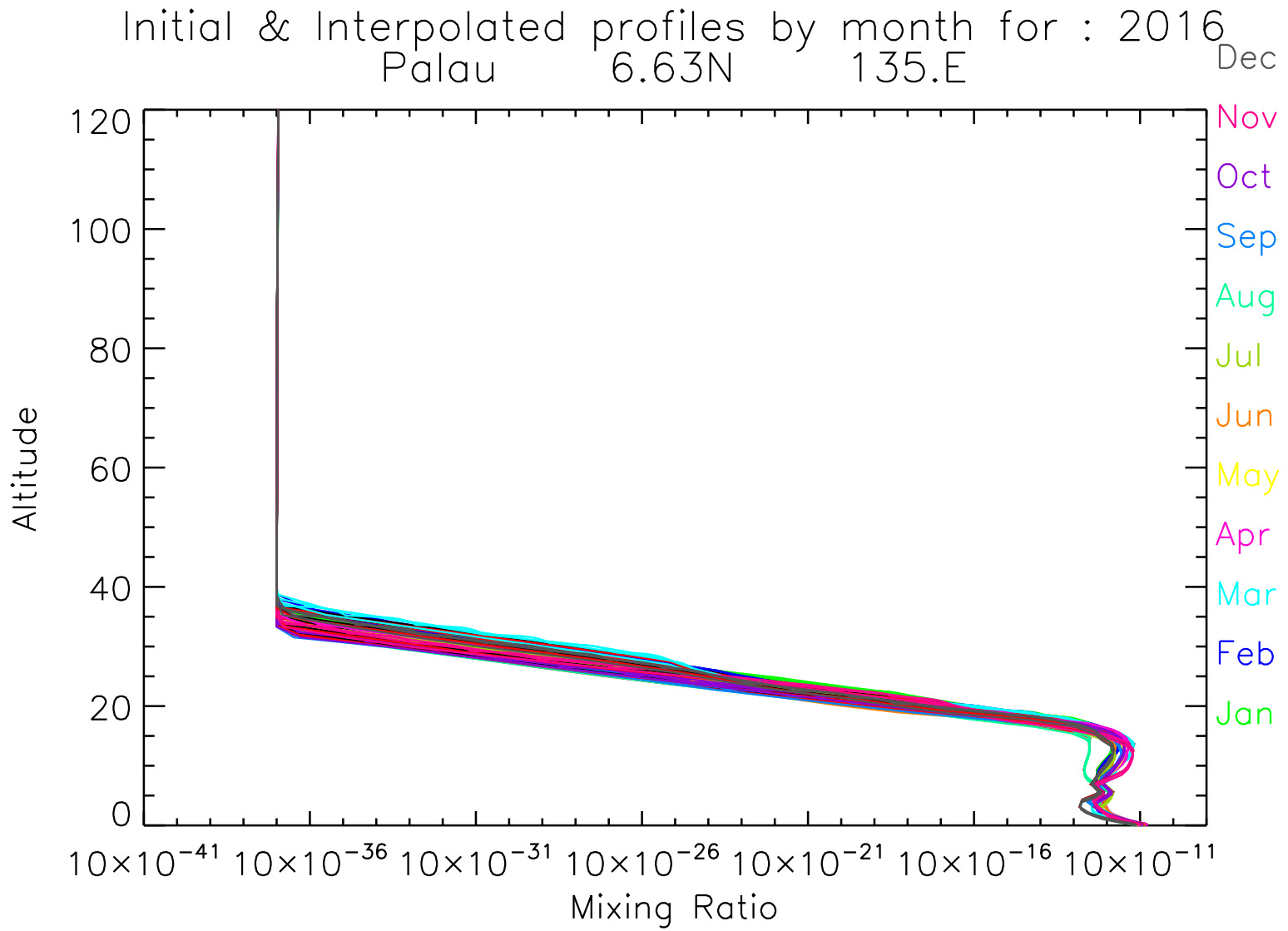

Initial & Interpolated profiles by month for : 2011
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

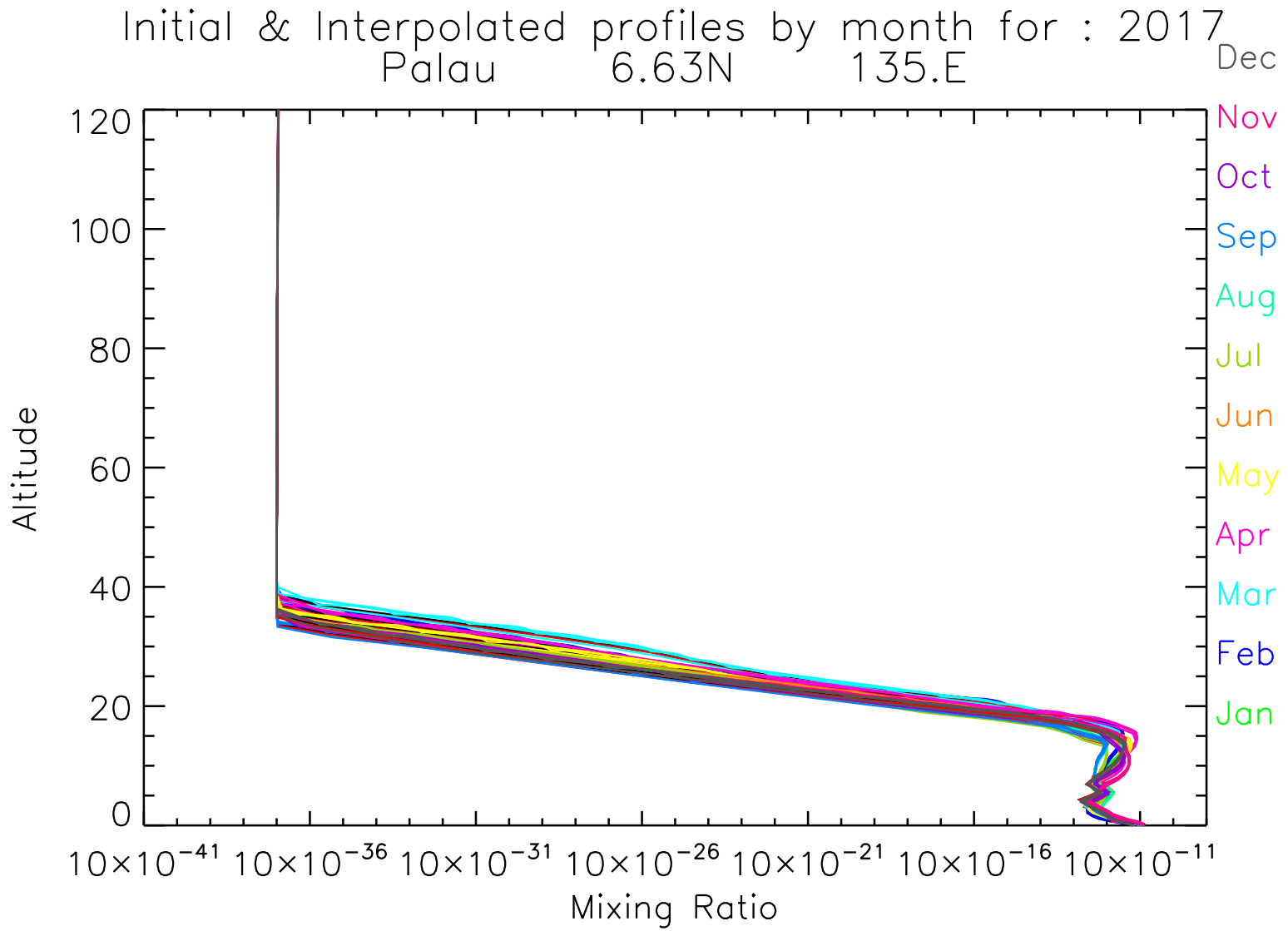

Initial & Interpolated profiles by month for : 2012
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

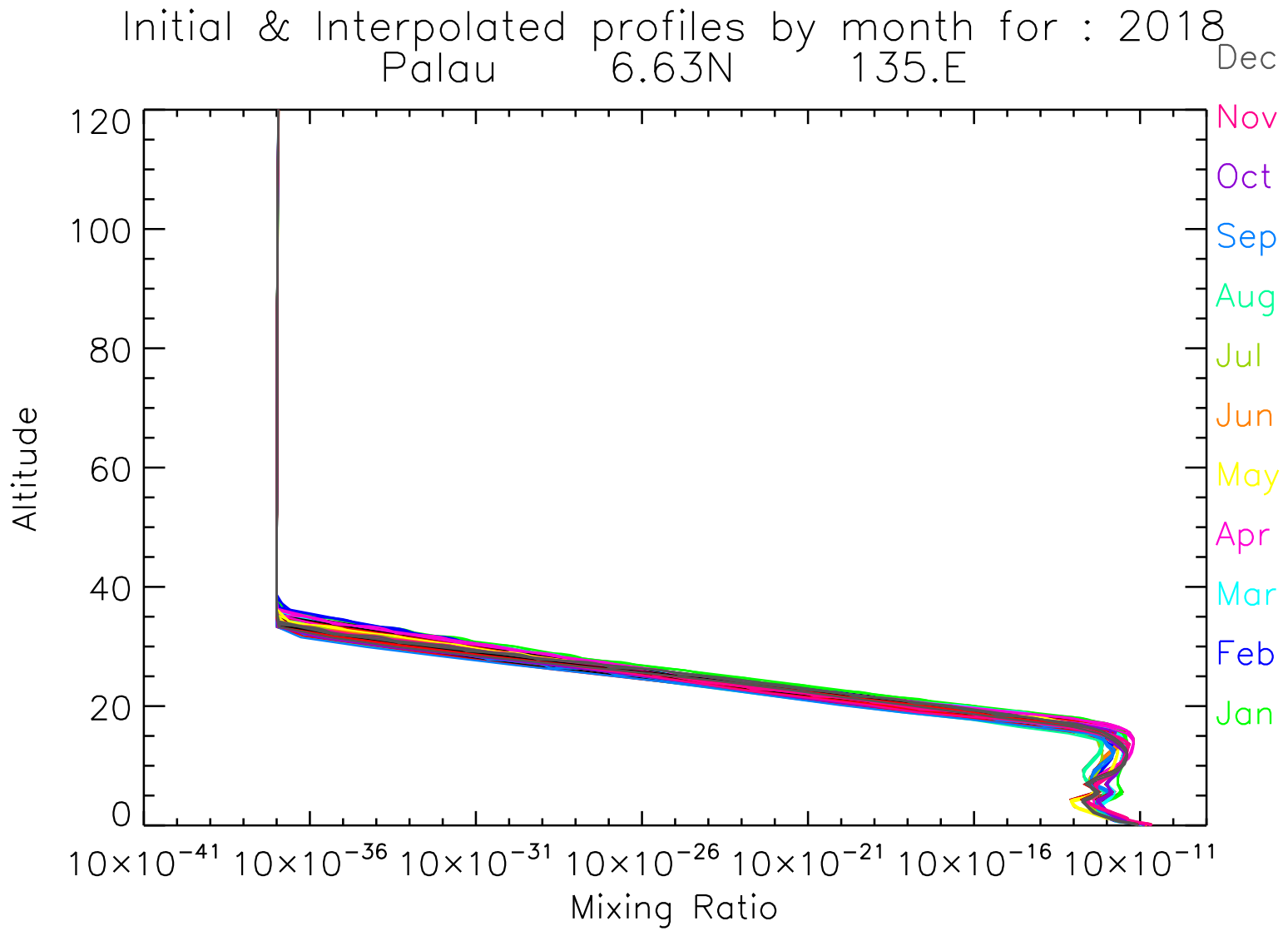

Initial & Interpolated profiles by month for : 2013
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

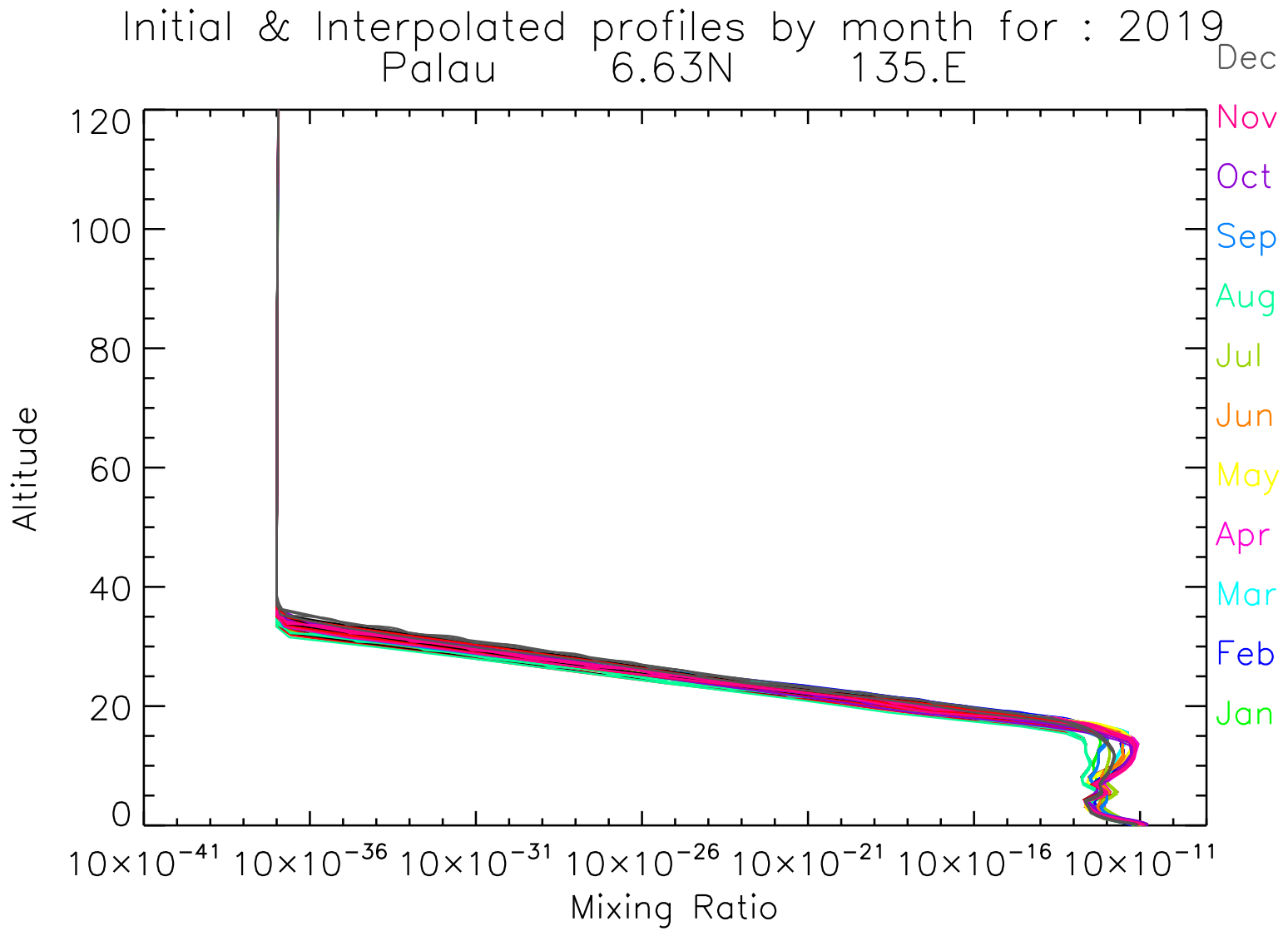

Initial & Interpolated profiles by month for : 2014
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

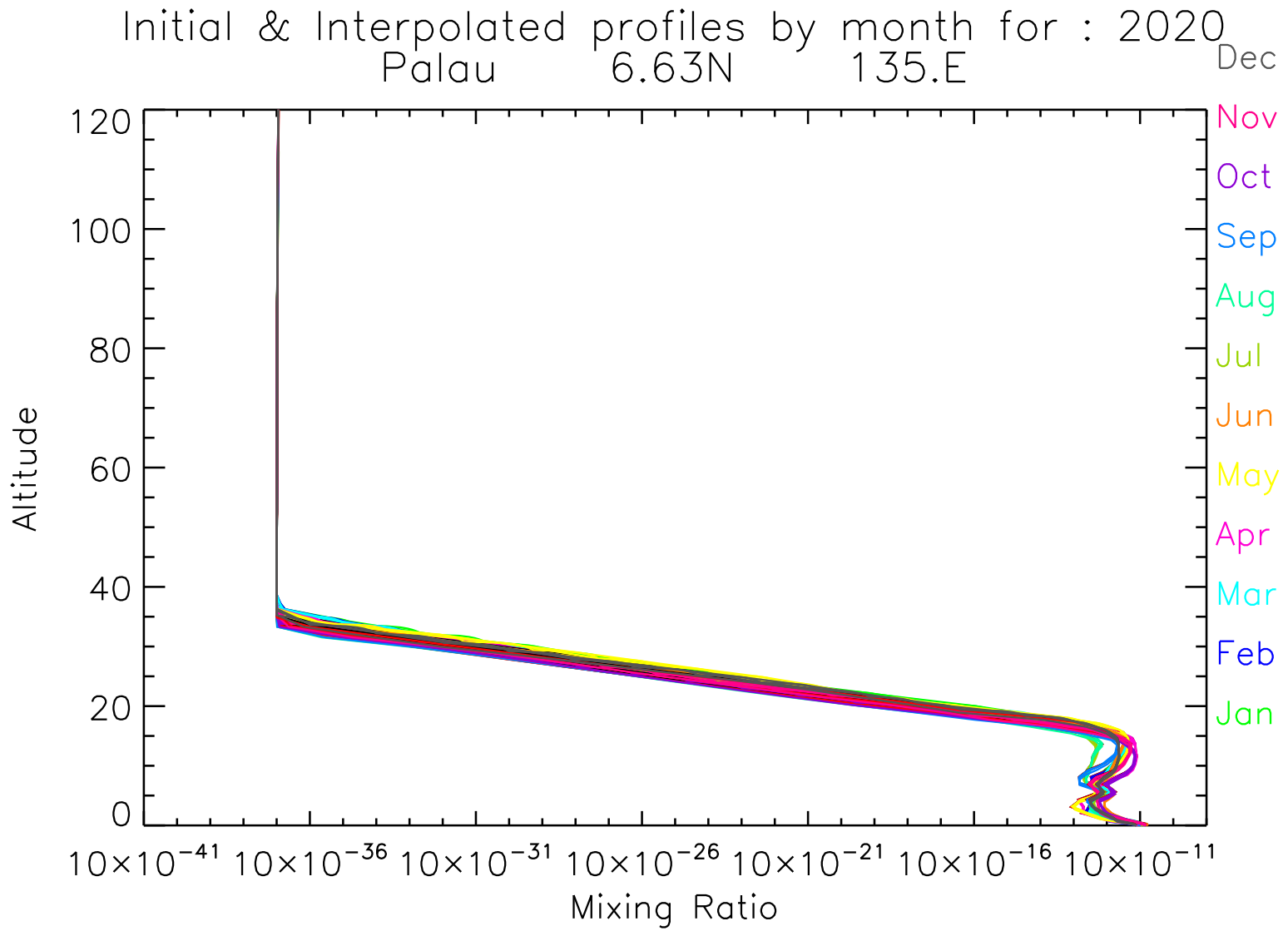

Initial & Interpolated profiles by month for : 2015
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

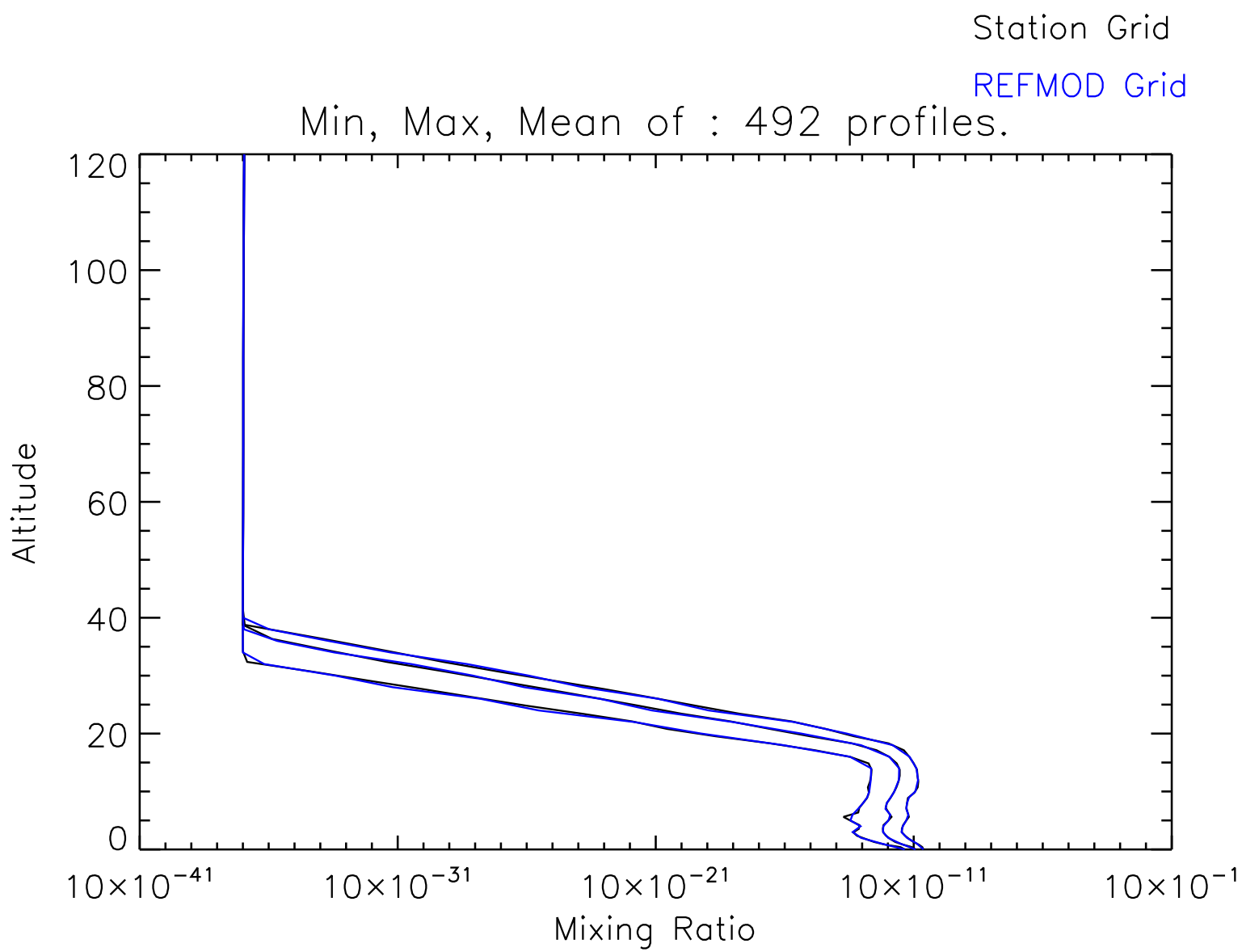

Initial & Interpolated profiles by month for : 2016
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

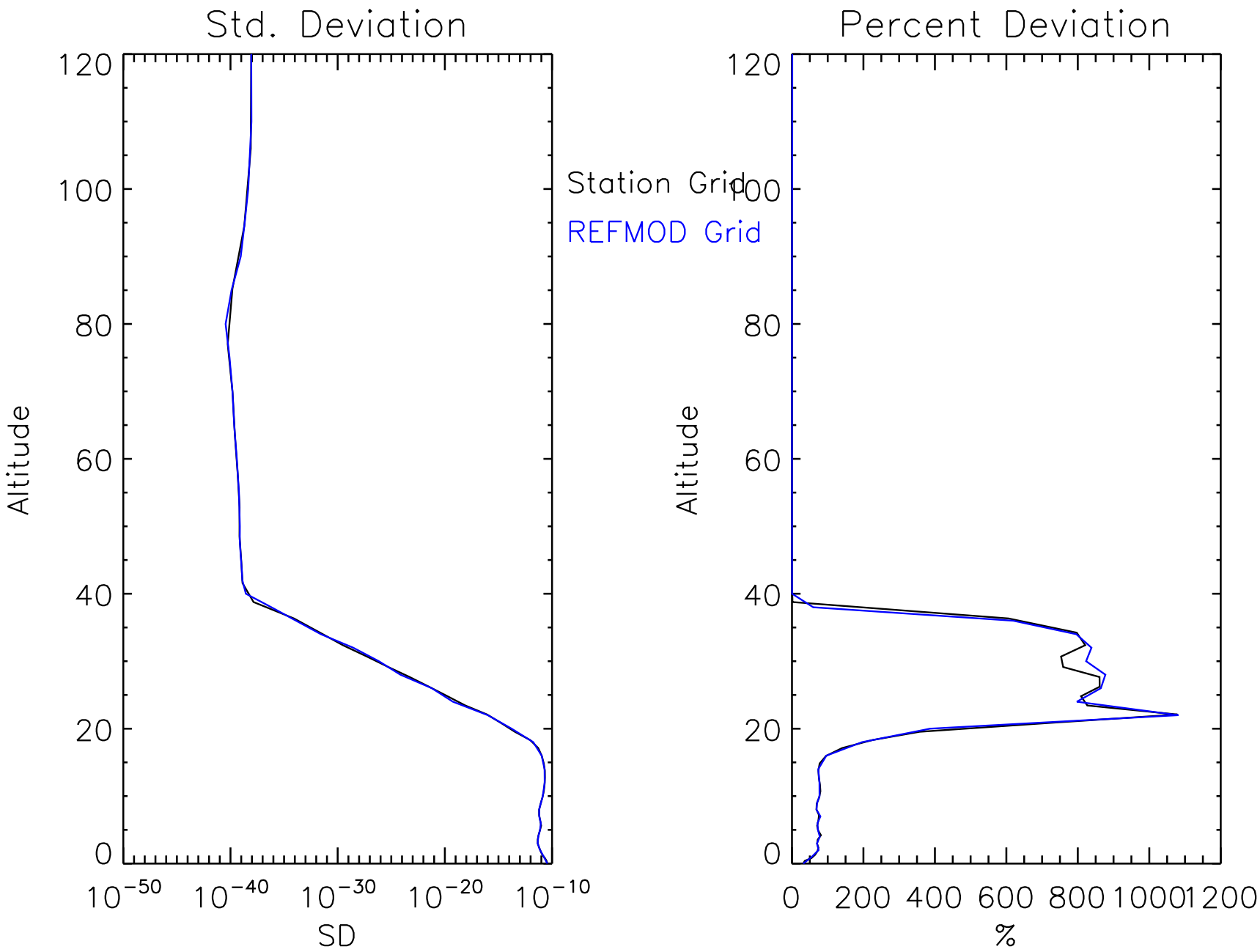

Initial & Interpolated profiles by month for : 2017
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

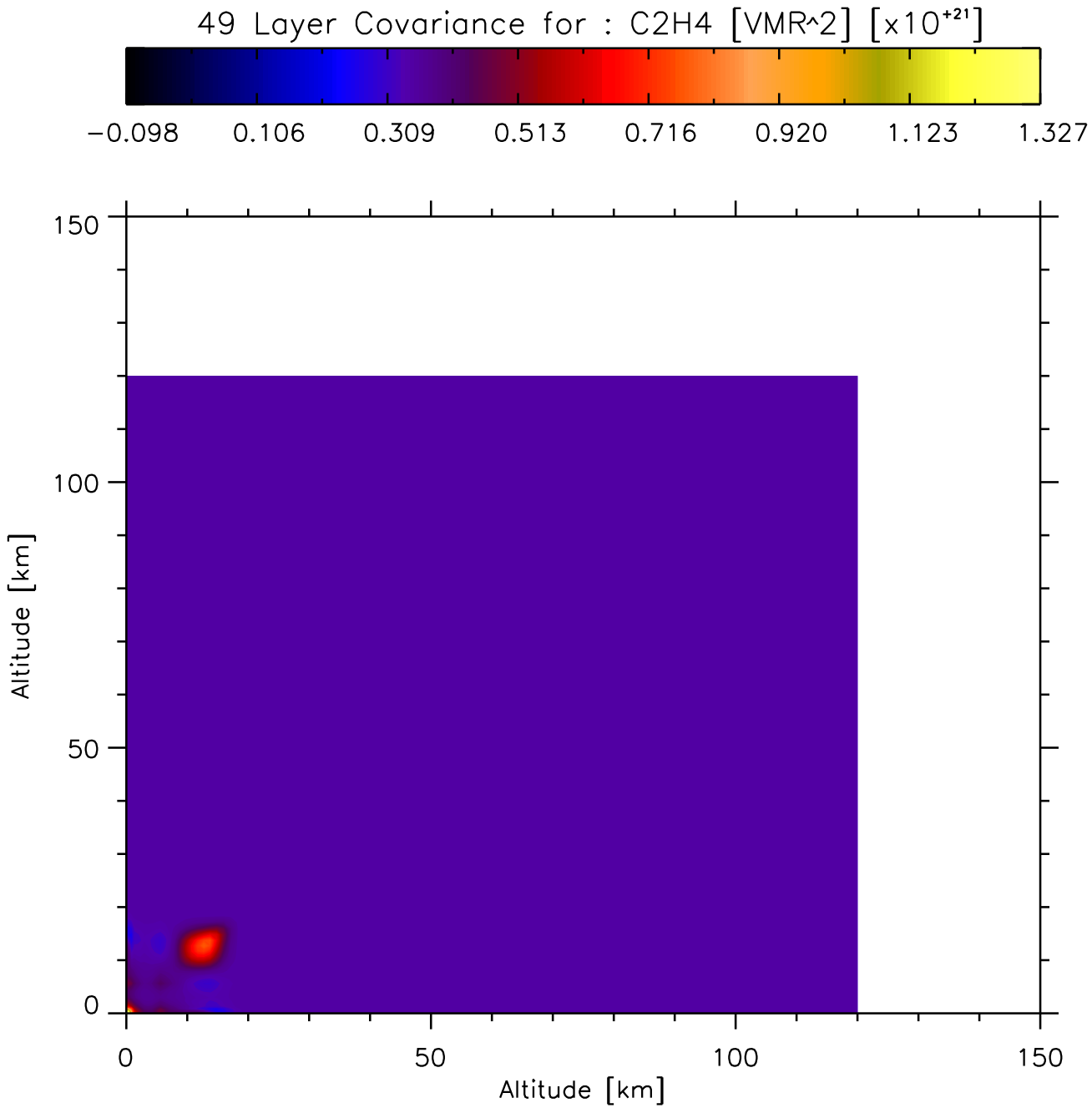

Initial & Interpolated profiles by month for : 2018
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

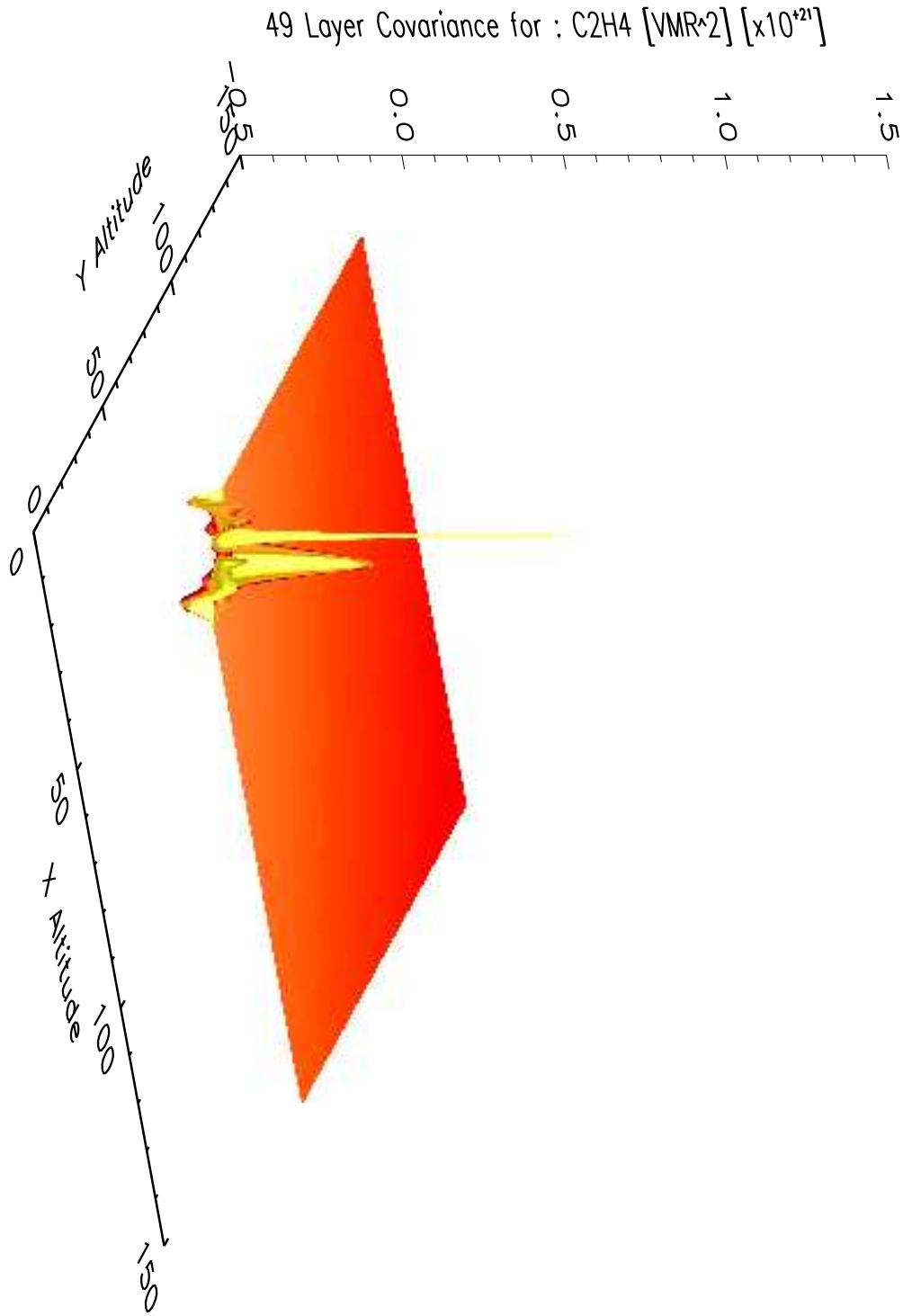

Initial & Interpolated profiles by month for : 2019
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio

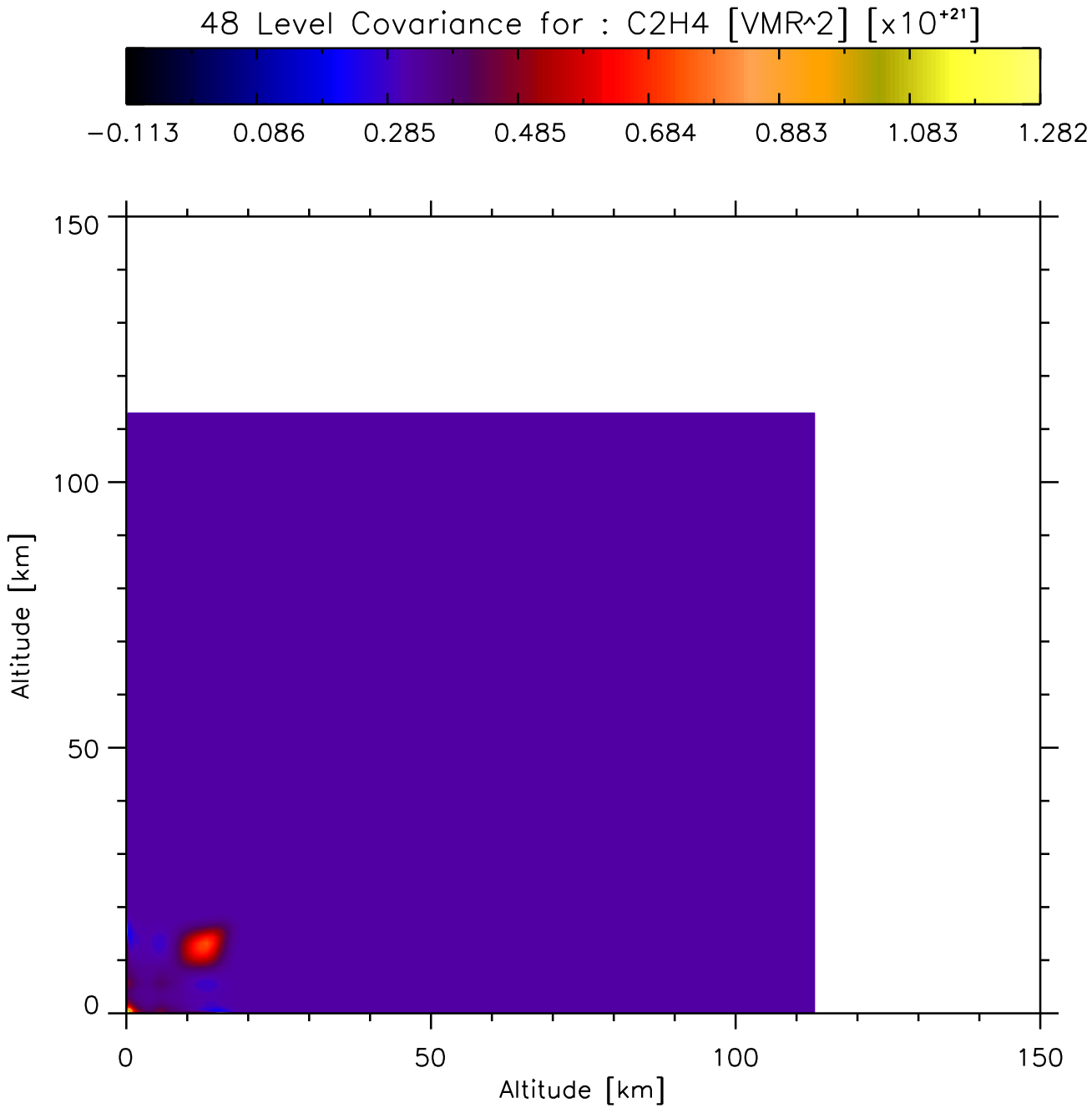

Initial & Interpolated profiles by month for : 2020
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10×10^-41 10×10^-36 10×10^-31 10×10^-26 10×10^-21 10×10^-16 10×10^-11
Mixing Ratio


Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
120
100
80
60
40
20
0
Altitude
10×10^-41
10×10^-31
10×10^-21
10×10^-11
10×10^-1
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-50}
10^{-40}
10^{-30}
10^{-20}
10^{-10}
SD
0
200
400
600
800
1000
1200
%


49 Layer Covariance for : C2H4 [VMR^2] [x10^+21]
−0.098
0.106
0.309
0.513
0.716
0.920
1.123
1.327
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


49 Layer Covariance for : C2H4 [VMR^2] [x10^+21]
-0.5
0.0
0.5
1.0
1.5
Y Altitude
150
100
50
0
X Altitude
0
50
100
150


48 Level Covariance for : C2H4 [VMR^2] [x10^+21]
−0.113
0.086
0.285
0.485
0.684
0.883
1.083
1.282
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

48 Level Covariance for : C2H4 [VMR^2] [x10^21]
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
Y Altitude
0
20
40
60
80
100
120
140
160
X Altitude
0
50
100
150