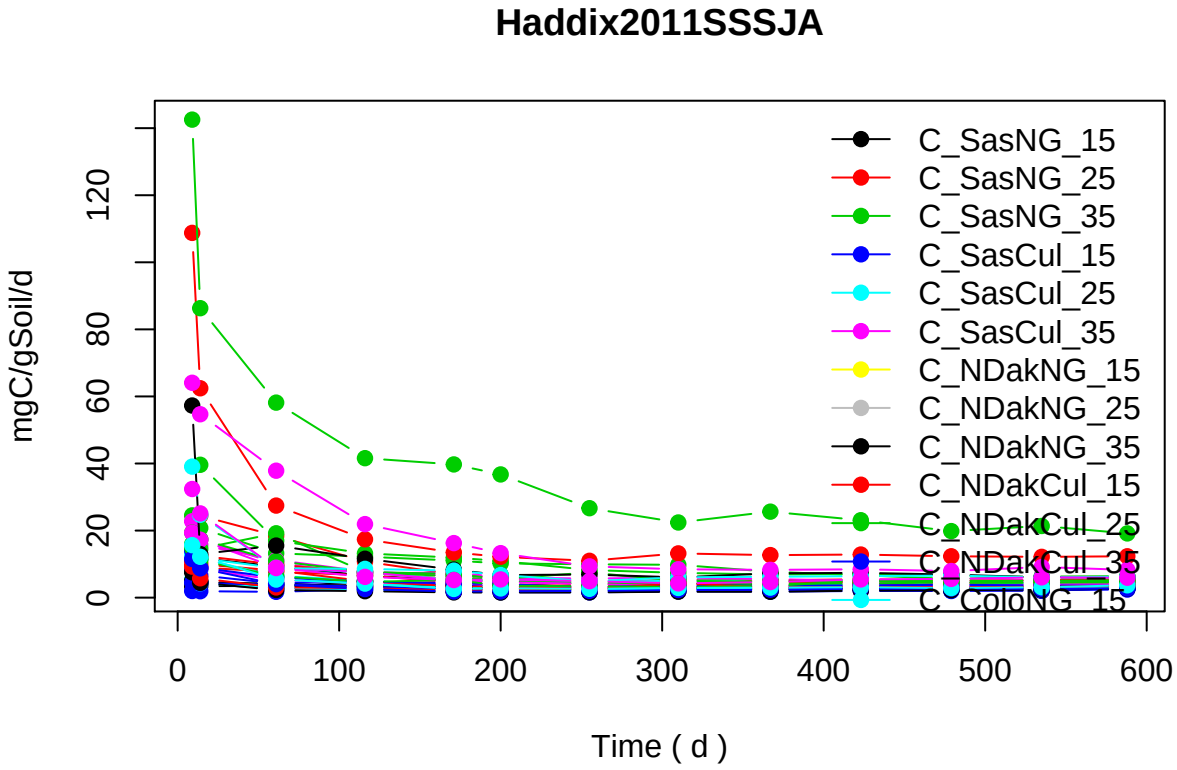
Fitting models on Haddix2011SSSJA

Mina Azizi-Rad

6/21/2021

Dataset Haddix2011SSSJA

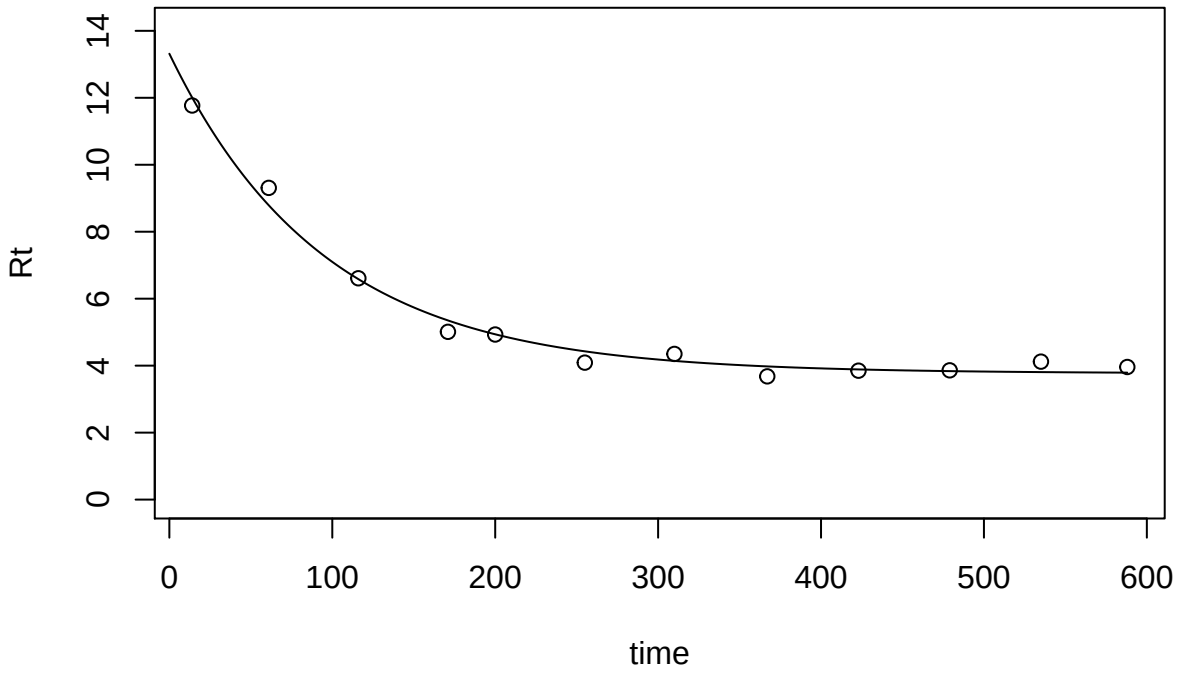
A dataset with 37 variables of 6 different sites each two levels of vegetation (Native grassland and cultivated). and three levels of temperature (15, 25, 35)



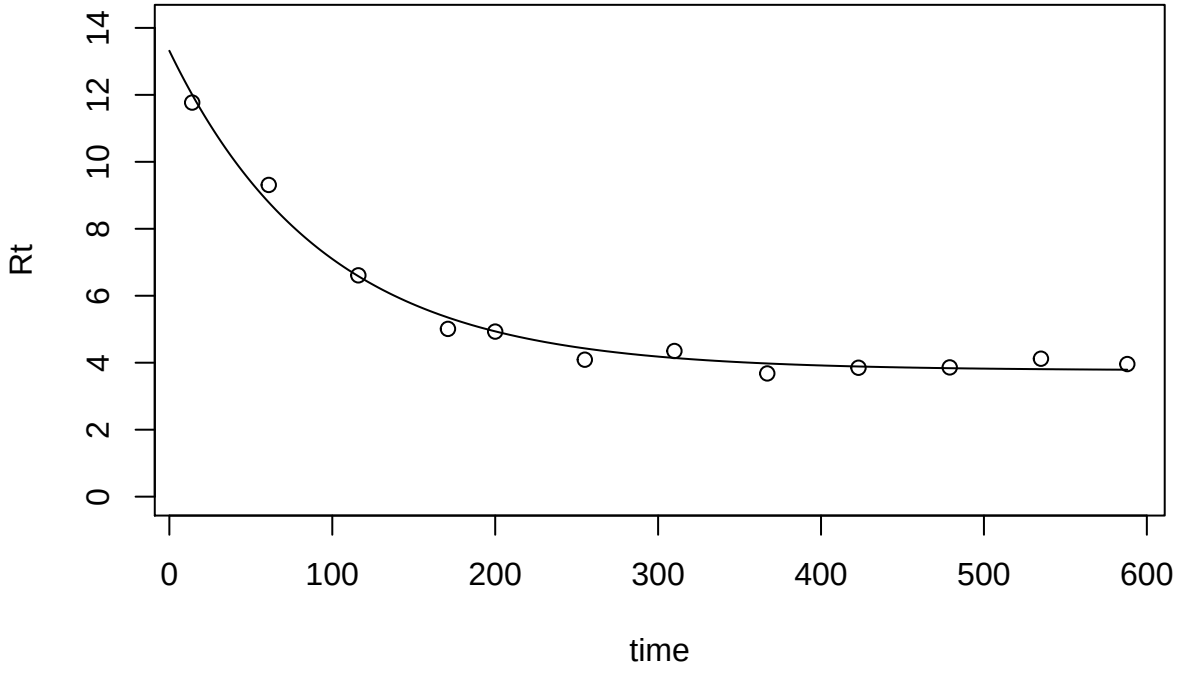
Variable C_SasNG_15:

Decomposition rates over time at 15 degrees for Saskatchewan, native grassland

```
## [1] "k1= 0.010570825010815"
## [2] "k2= 1.02539320945745e-05"
## [3] "proportion of C0 in pool 1= 0.00242798830306595"
```

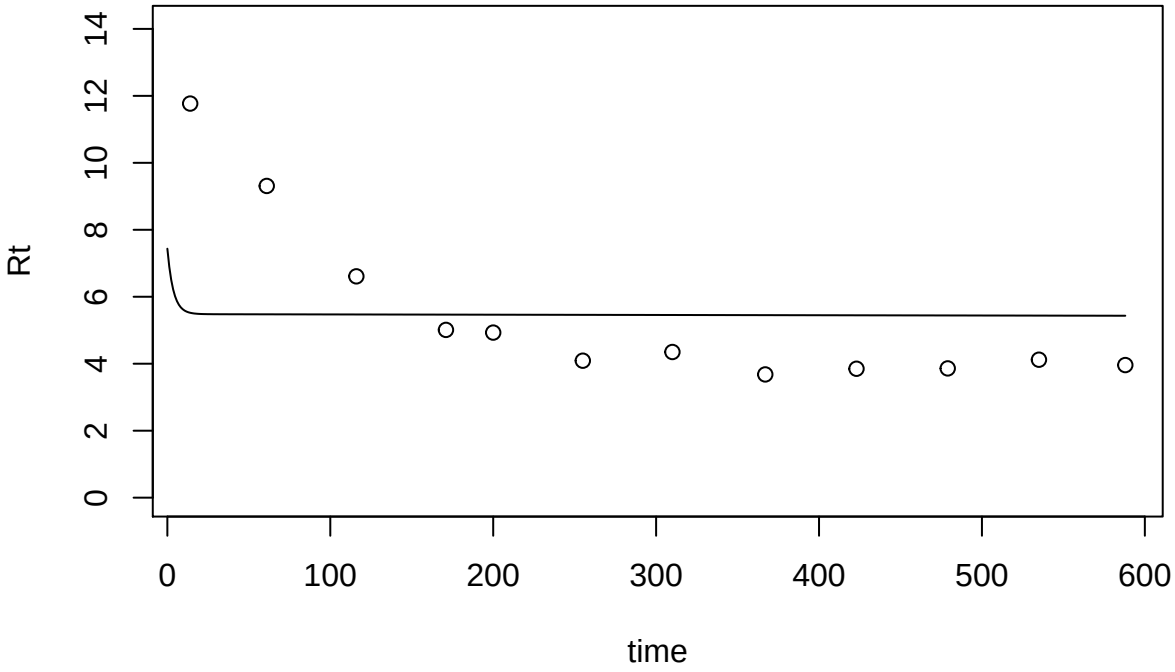



```
## [1] "AIC =  11.3730052784047"
## [1] "k1= 0.010558046893023"
## [2] "k2= 2.30419853551235e-05"
## [3] "a21= 0.554629423678942"
## [4] "a12= 0.999676629504385"
## [5] "Proportion of C0 in pool 1= 0.00763199318708296"
```

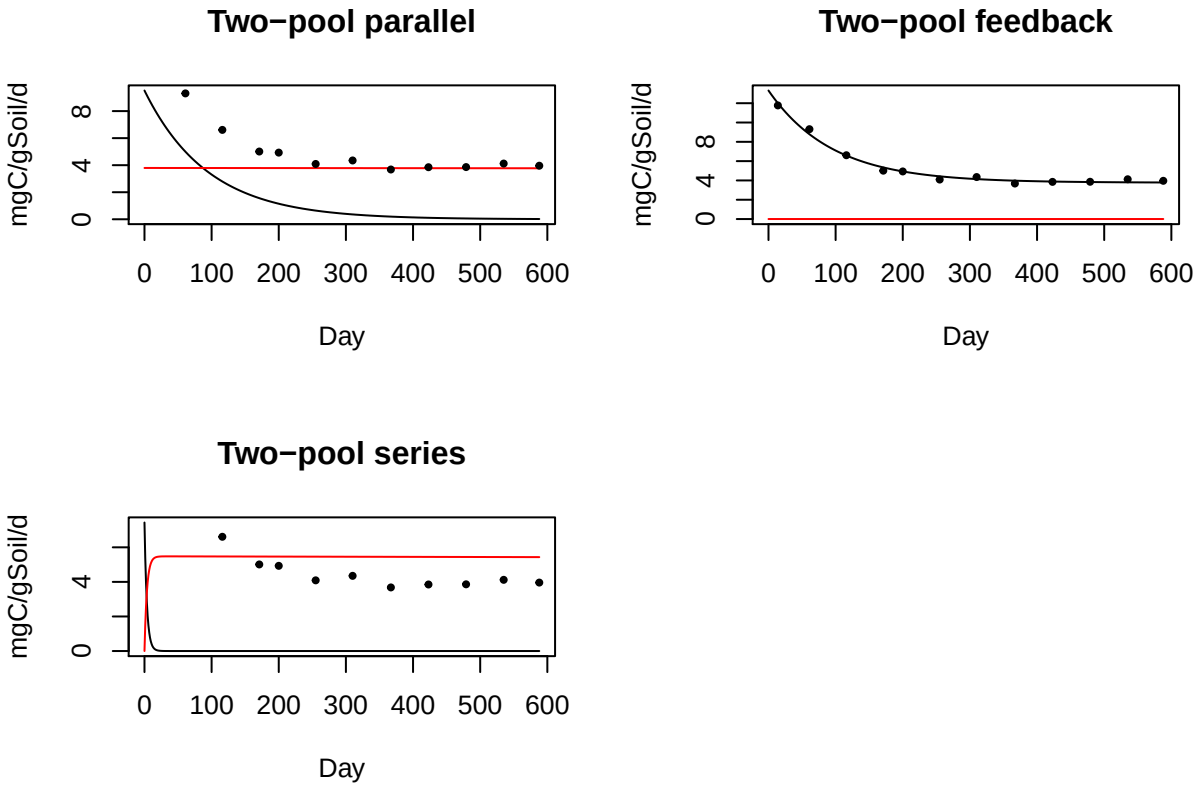



```
## [1] "AIC =  15.3730052784354"
## [1] "k1= 0.274046966338605"
## [2] "k2= 1.47721754505329e-05"
## [3] "a21= 0.99992687032676"
```

```
## [4] "Proportion of C0 in pool 1= 0.99998001415612"
```




```
## [1] "AIC =  4.45221217194093"
```



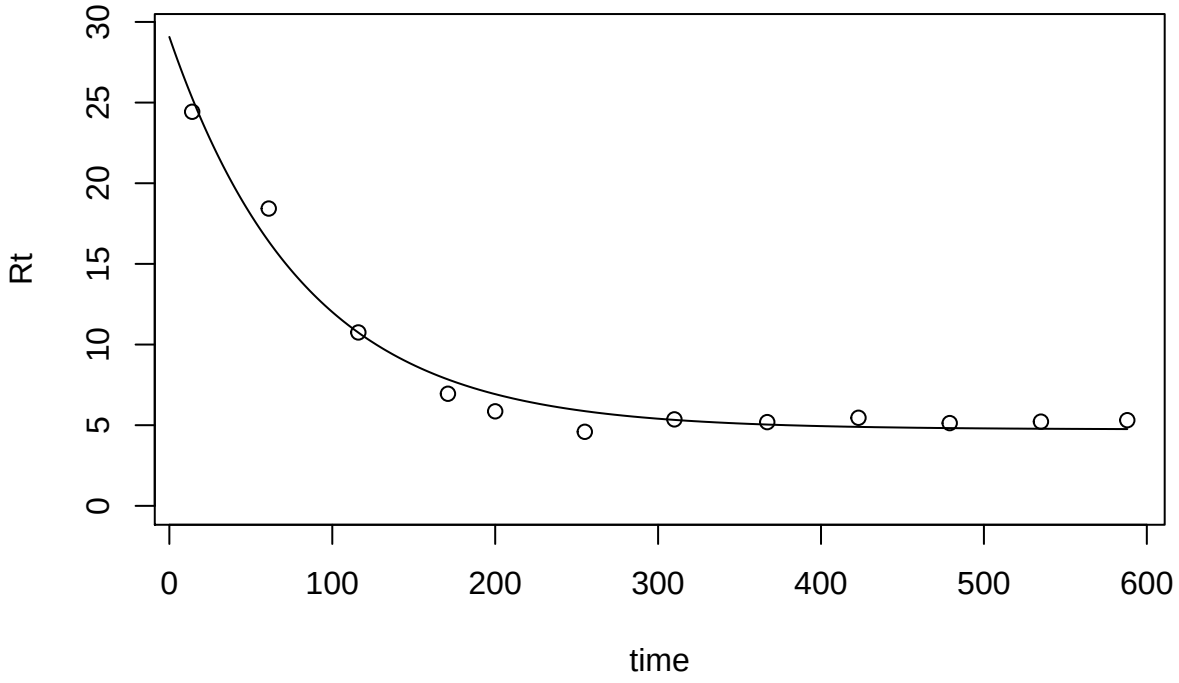
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	11.373005	0.0105708	1.03e-05	0.002428	NA	NA
Two-pool feedback	15.373005	0.0105580	2.30e-05	0.007632	0.5546294	0.9996766

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	4.452212	0.2740470	1.48e-05	0.999980	0.9999269	NA

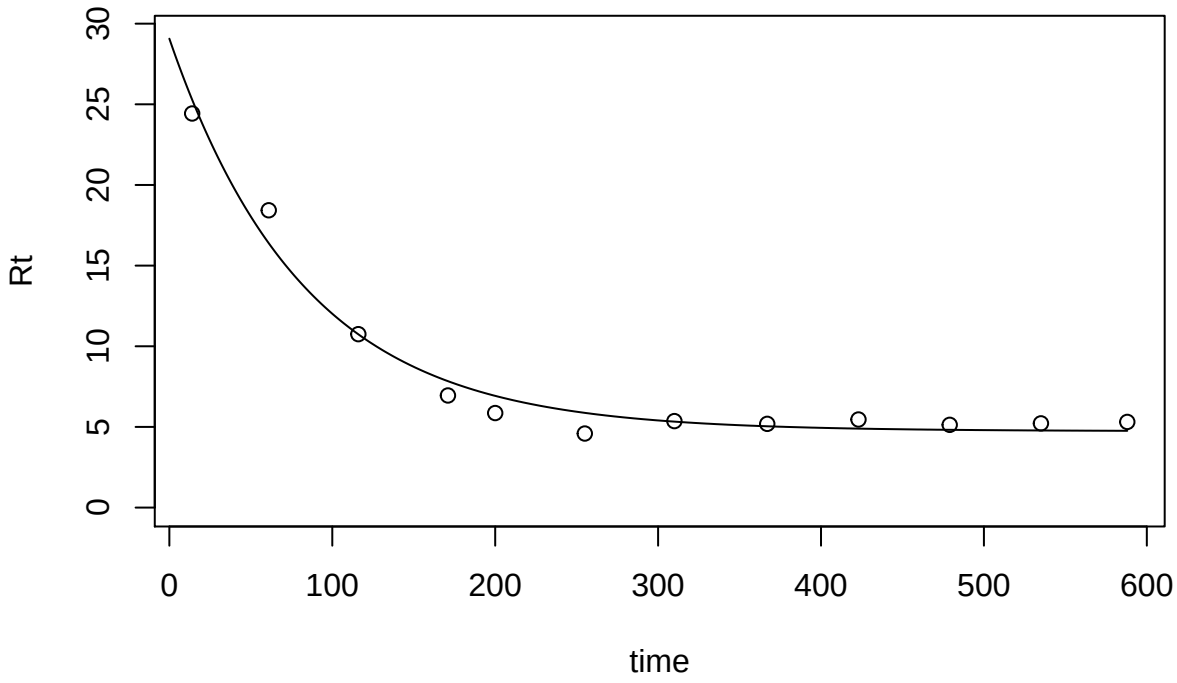
Variable C_SasNG_25:

Decomposition rates over time at 25 degrees for Saskatchewan, native grassland

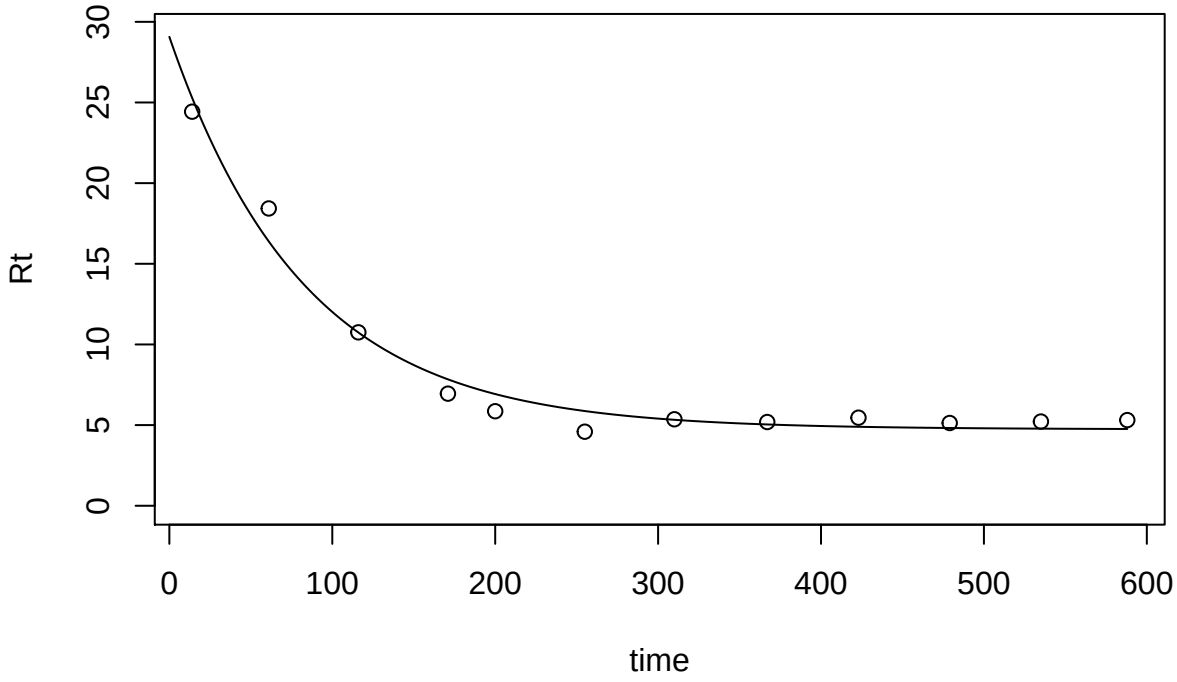
```
## [1] "k1= 0.0120937186045746"
## [2] "k2= 1.29414122820753e-05"
## [3] "proportion of C0 in pool 1= 0.00541429811751787"
```



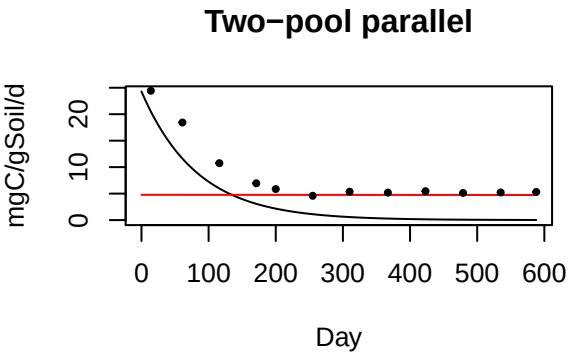

```
## [1] "AIC =  6.48912110556502"
## [1] "k1= 0.012090164669088"
## [2] "k2= 1.6408707464714e-05"
## [3] "a21= 0.265747674244539"
## [4] "a12= 0.794301488665327"
## [5] "Proportion of C0 in pool 1= 0.00844897708774806"
```

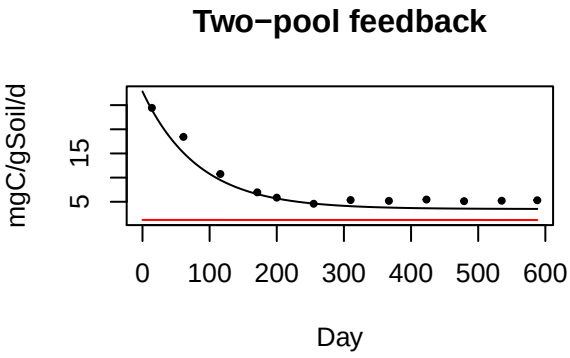


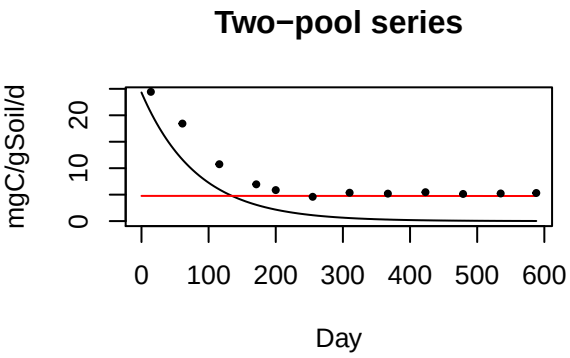

```
## [1] "AIC =  10.4891211032834"
## [1] "k1= 0.0120936326456381"
## [2] "k2= 1.29413645956327e-05"
## [3] "a21= 0.370141318783752"
## [4] "Proportion of C0 in pool 1= 0.00860150041526925"
```




```
## [1] "AIC =  8.48912110333053"
```





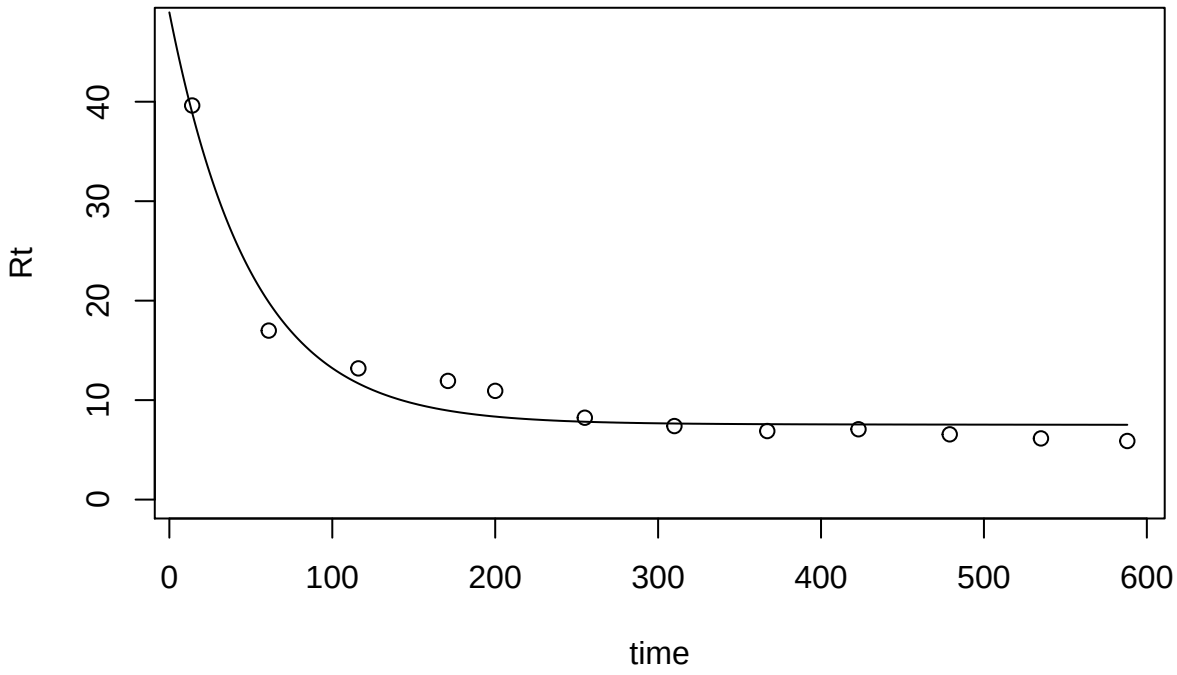


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	6.489121	0.0120937	1.29e-05	0.0054143	NA	NA
Two-pool feedback	10.489121	0.0120902	1.64e-05	0.0084490	0.2657477	0.7943015
Two-pool series	8.489121	0.0120936	1.29e-05	0.0086015	0.3701413	NA

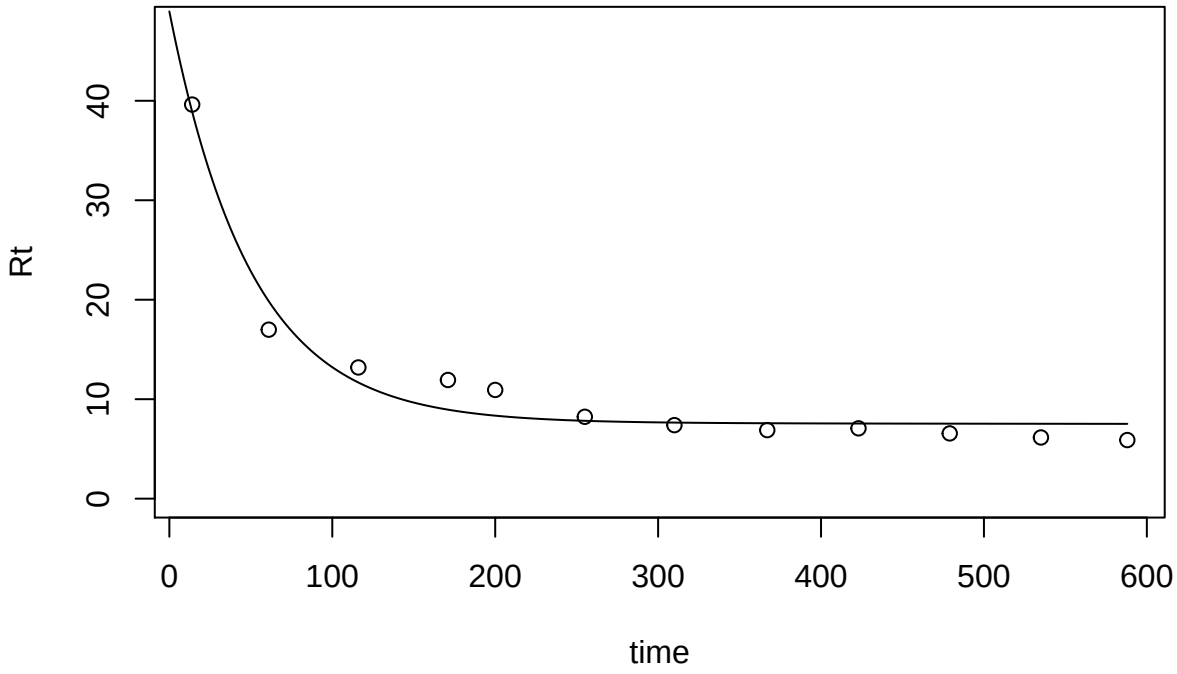
Variable C_SasNG_35:

Decomposition rates over time at 35 degrees for Saskatchewan, native grassland

```
## [1] "k1= 0.0199595783005765"
## [2] "k2= 2.06300015411172e-05"
## [3] "proportion of C0 in pool 1= 0.00558683163118551"
```

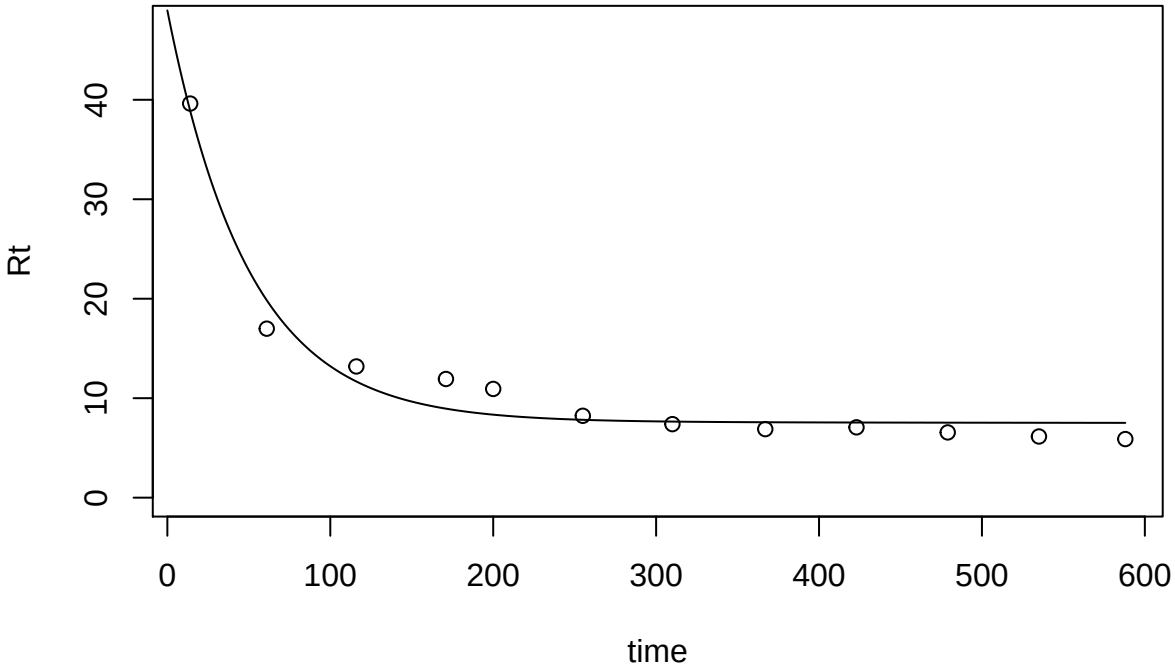



```
## [1] "AIC =  3.97602023639071"
## [1] "k1= 0.0199597902700125"
## [2] "k2= 2.06302925760766e-05"
## [3] "a21= 0.470736450849709"
## [4] "a12= 2.35537136159536e-05"
## [5] "Proportion of C0 in pool 1= 0.0105655306698387"
```

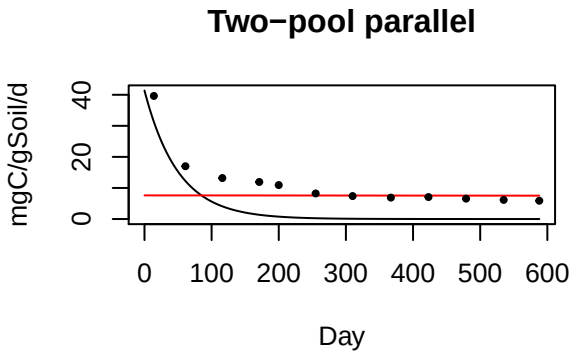


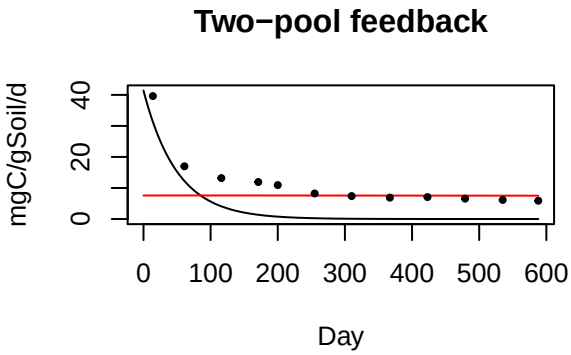

```
## [1] "AIC =  7.97602023729025"
## [1] "k1= 0.0199597920800782"
## [2] "k2= 2.06300640996681e-05"
## [3] "a21= 0.50804953341895"
```

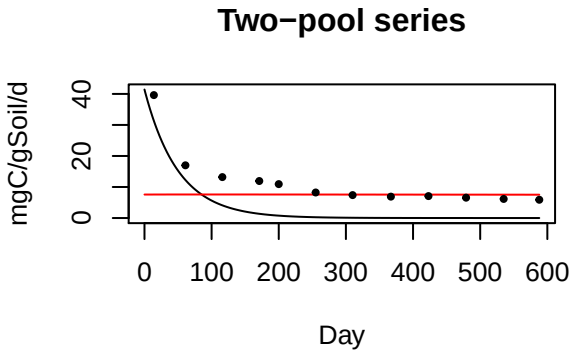
```
## [4] "Proportion of C0 in pool 1= 0.0113685605935065"
```




```
## [1] "AIC =  5.97602023729471"
```







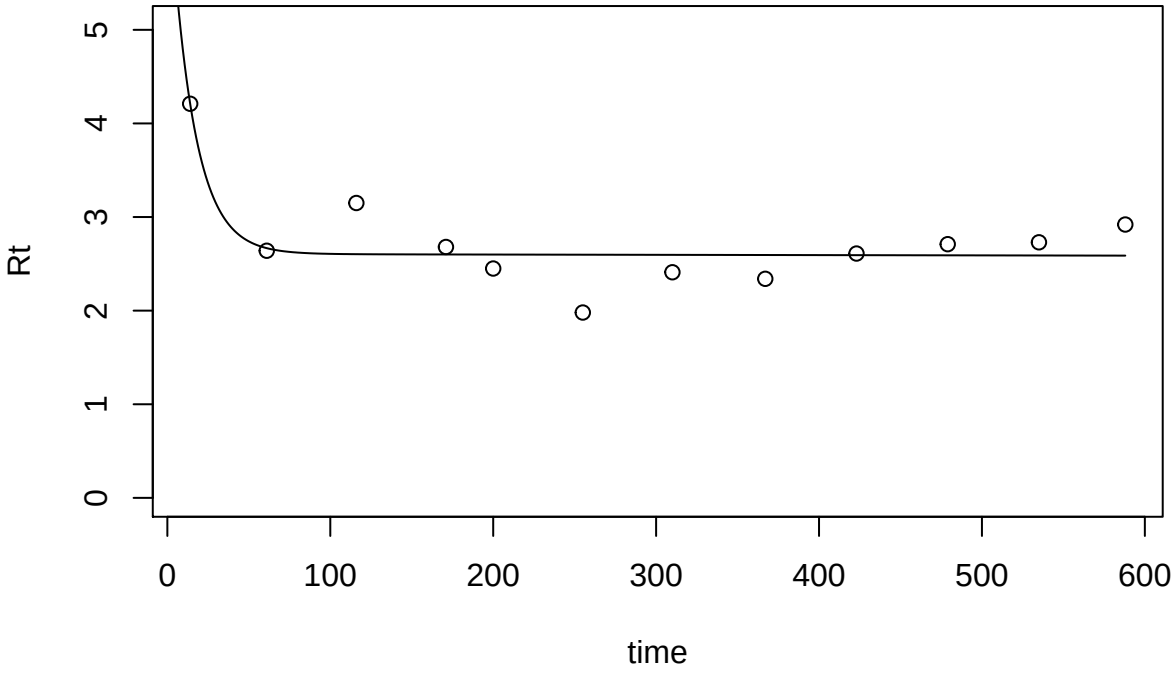
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	3.97602	0.0199596	2.06e-05	0.0055868	NA	NA
Two-pool feedback	7.97602	0.0199598	2.06e-05	0.0105655	0.4707365	2.36e-05

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	5.97602	0.0199598	2.06e-05	0.0113686	0.5080495	NA

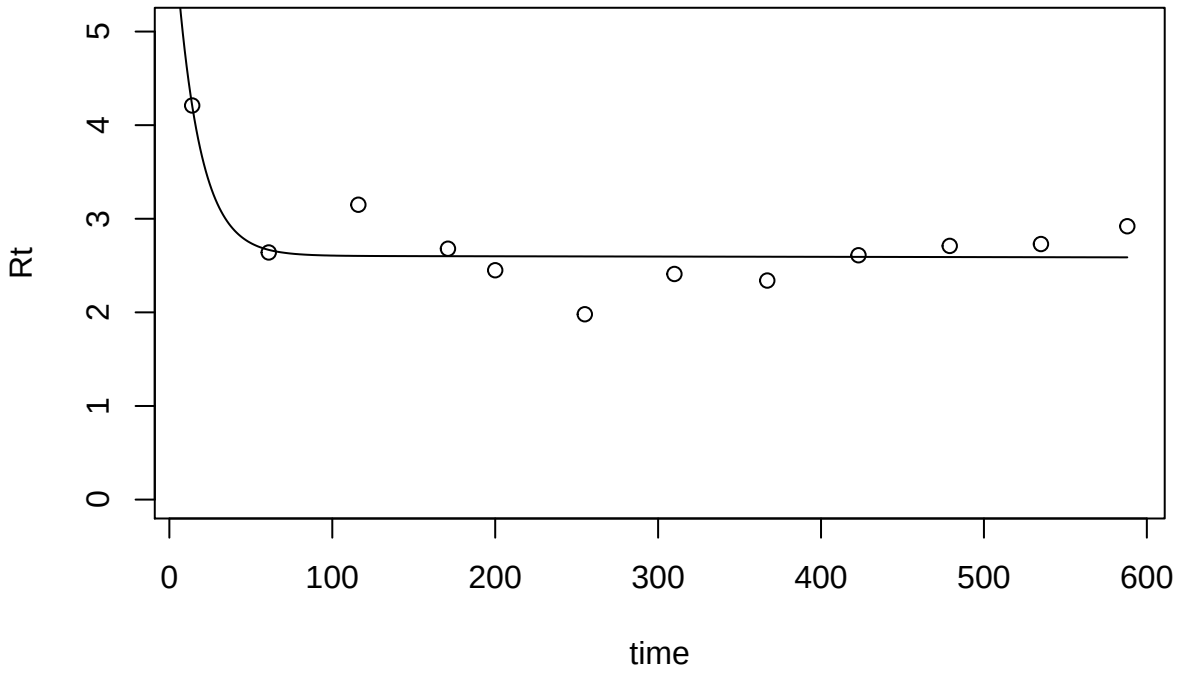
Variable C_SasCul_15:

Decomposition rates over time at 15 degrees for Saskatchewan, cultivated

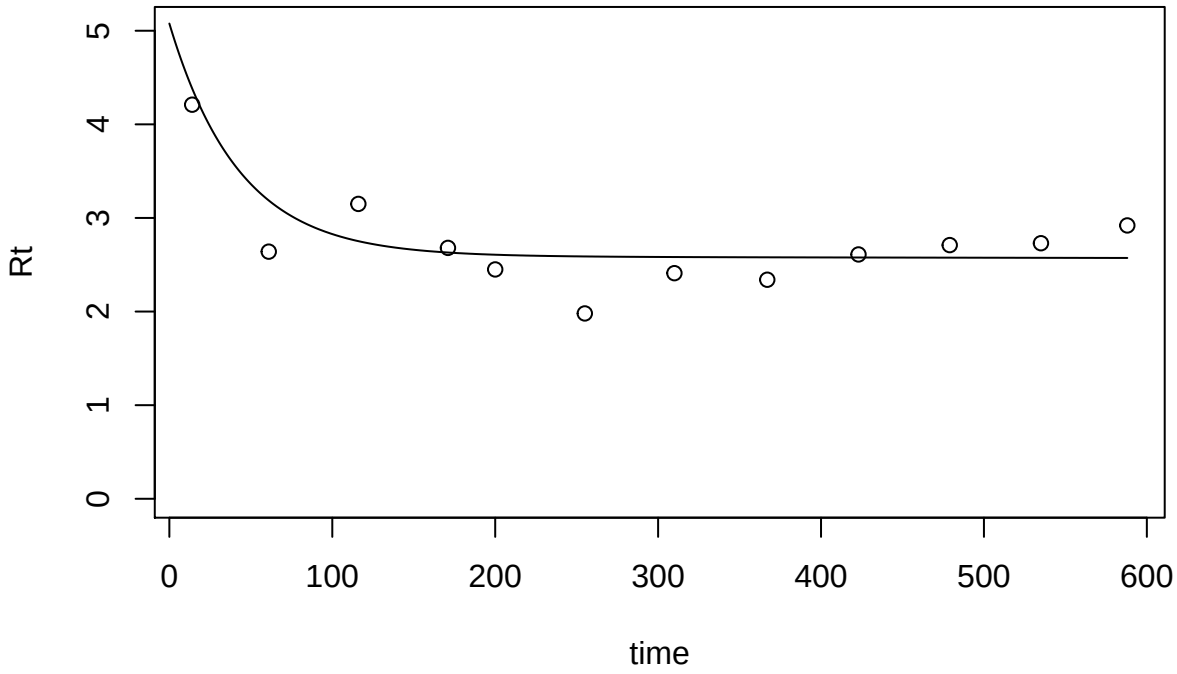
```
## [1] "k1= 0.0684806121322945"
## [2] "k2= 1.13793358823499e-05"
## [3] "proportion of C0 in pool 1= 0.000266805570651951"
```



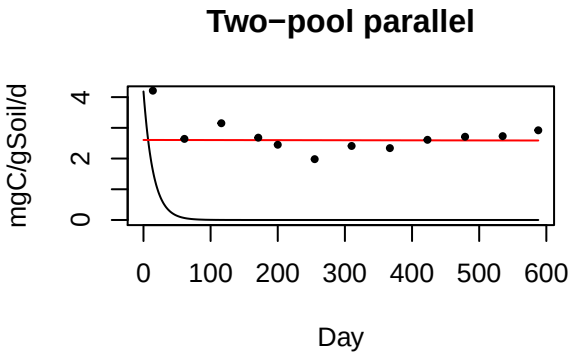

```
## [1] "AIC =  11.0646071583259"
## [1] "k1= 0.0683563505526697"
## [2] "k2= 0.000111391154498572"
## [3] "a21= 0.898504280127928"
## [4] "a12= 0.999098439243619"
## [5] "Proportion of C0 in pool 1= 0.00425795174234339"
```

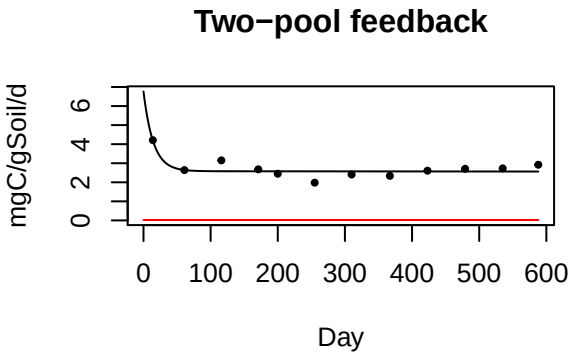


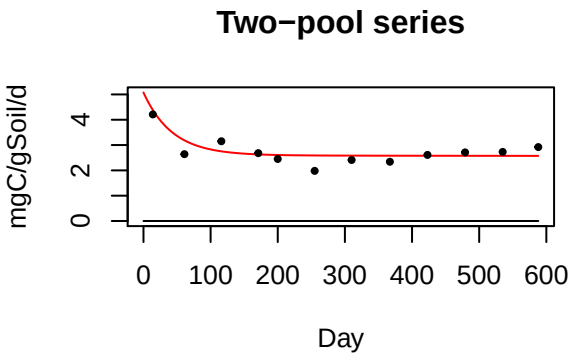

```
## [1] "AIC =  15.0646071320429"
## [1] "k1= 1.13140756919487e-05"
## [2] "k2= 0.0233465335898651"
## [3] "a21= 0.999957177167504"
## [4] "Proportion of C0 in pool 1= 0.999050409024352"
```




```
## [1] "AIC =  12.7147489032282"
```





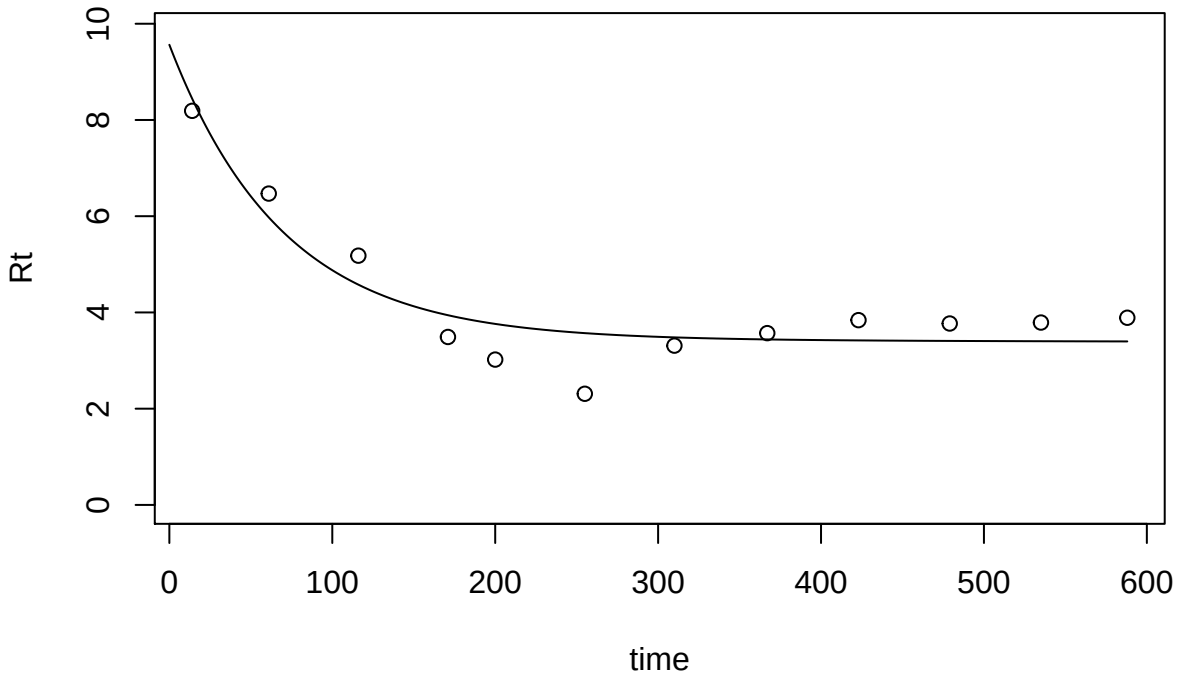


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	11.06461	0.0684806	0.0000114	0.0002668	NA	NA
Two-pool feedback	15.06461	0.0683564	0.0001114	0.0042580	0.8985043	0.9990984
Two-pool series	12.71475	0.0000113	0.0233465	0.9990504	0.9999572	NA

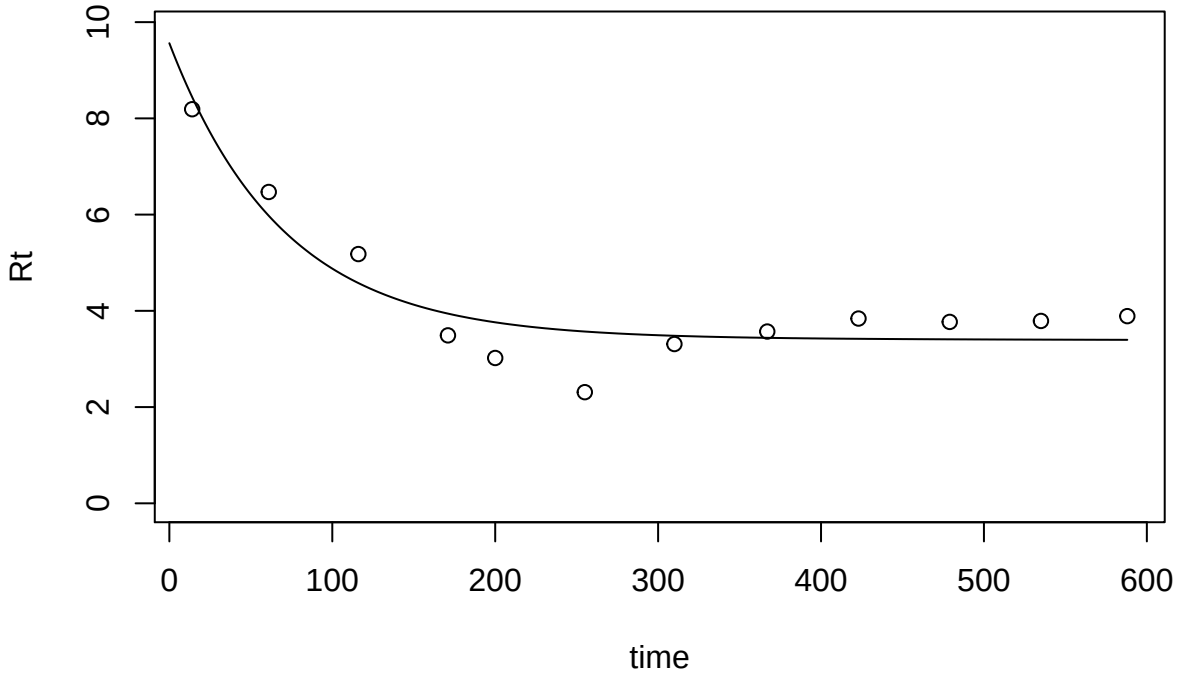
Variable C_SasCul_25:

Decomposition rates over time at 25 degrees for Saskatchewan, cultivated

```
## [1] "k1= 0.0143809520363933"
## [2] "k2= 1.49907920846509e-05"
## [3] "proportion of C0 in pool 1= 0.00186322814432766"
```

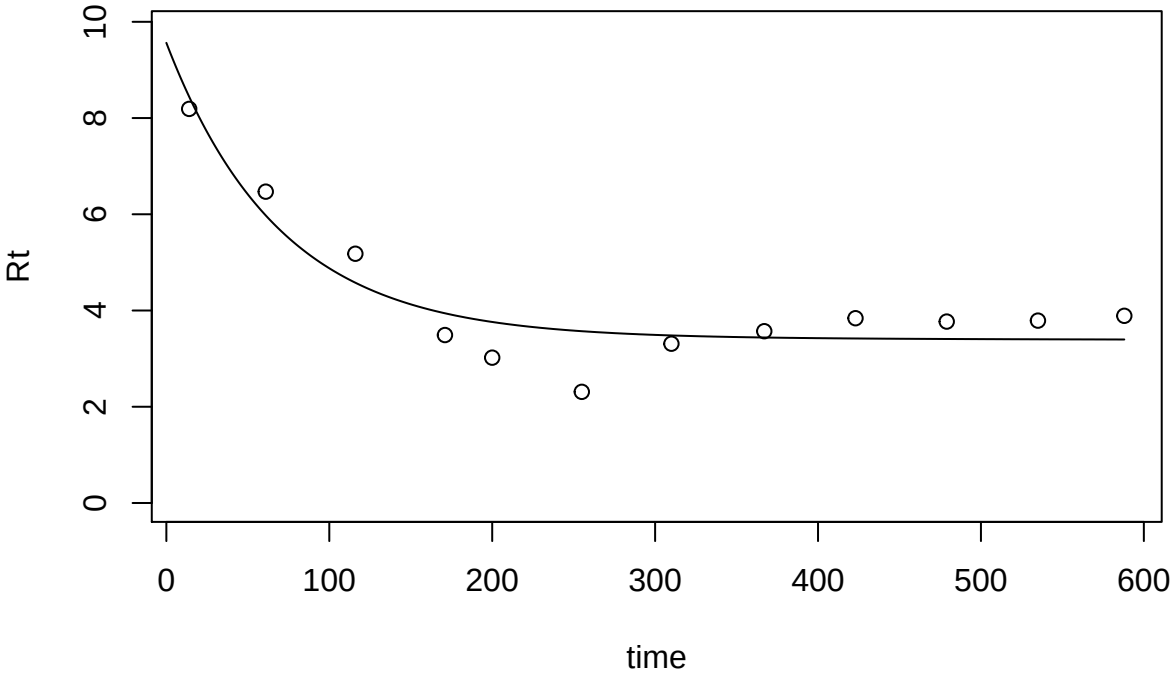



```
## [1] "AIC =  8.31976532407616"
## [1] "k1= 0.0143699542805779"
## [2] "k2= 2.5077829492108e-05"
## [3] "a21= 0.401844729109425"
## [4] "a12= 0.999929630136262"
## [5] "Proportion of C0 in pool 1= 0.00485784665824707"
```

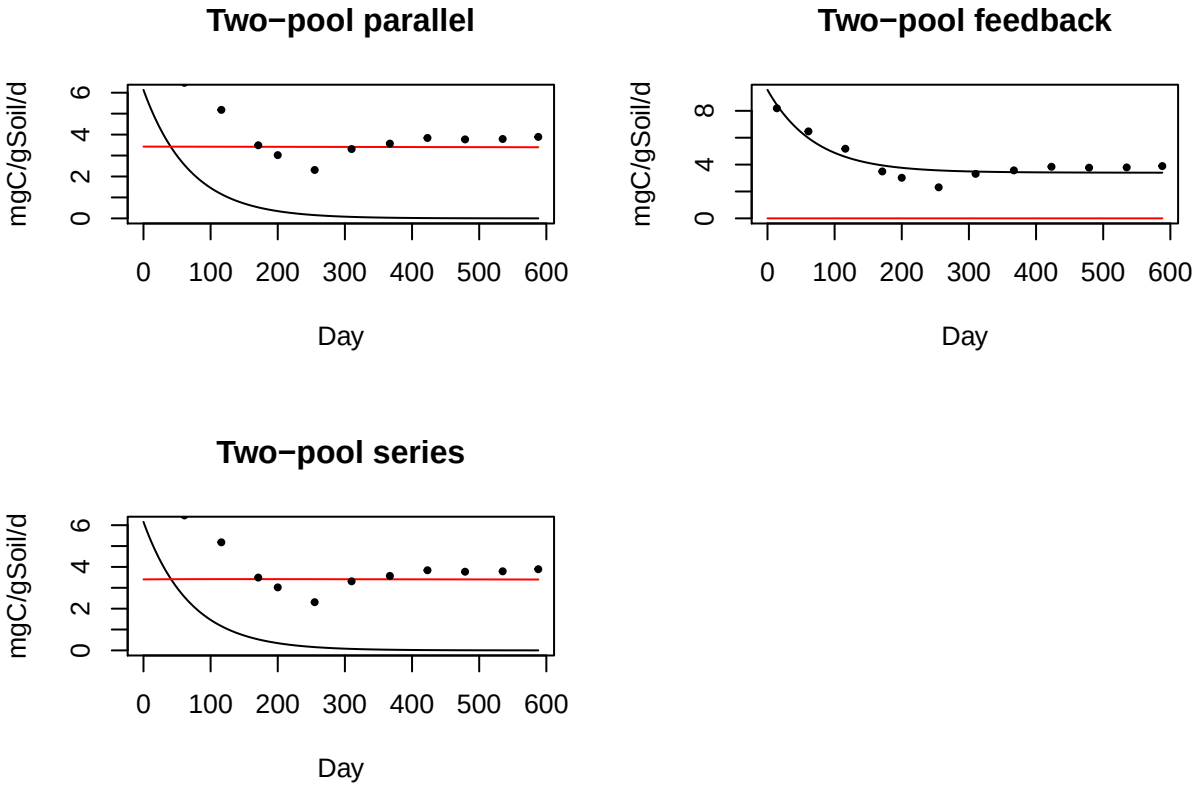



```
## [1] "AIC =  12.3197653228862"
## [1] "k1= 0.0143800662738971"
## [2] "k2= 1.49906575531552e-05"
## [3] "a21= 0.790045861882618"
```

```
## [4] "Proportion of C0 in pool 1= 0.00890997546302469"
```




```
## [1] "AIC =  10.3197653194535"
```



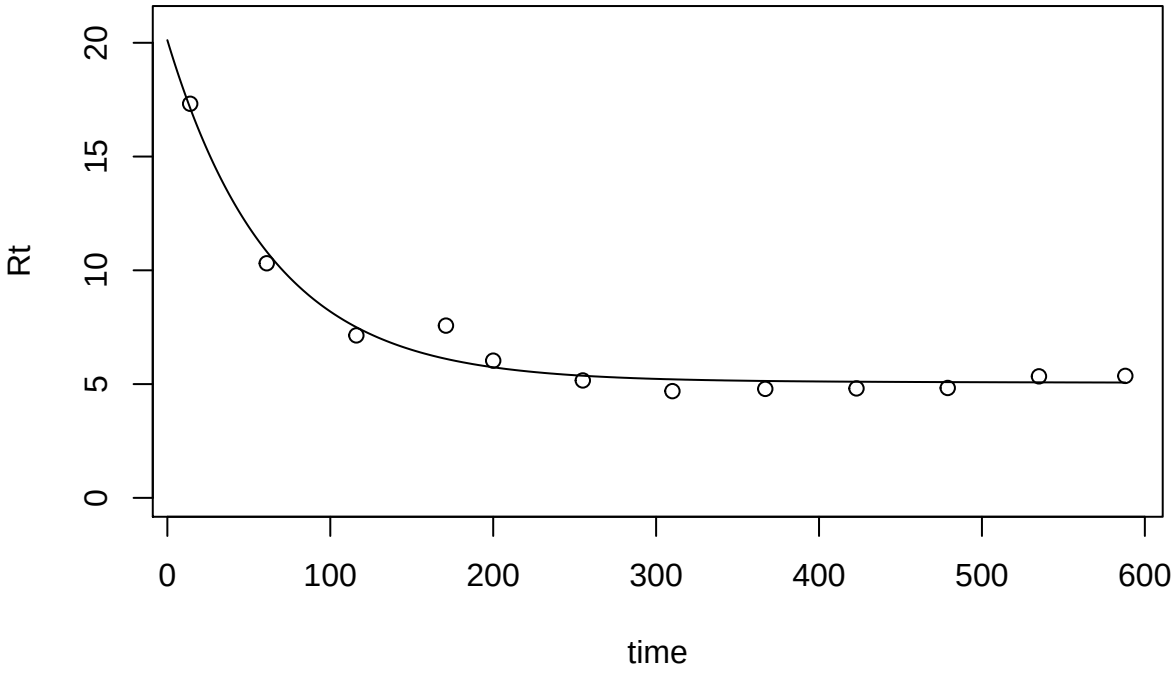
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	8.319765	0.0143810	1.50e-05	0.0018632	NA	NA
Two-pool feedback	12.319765	0.0143700	2.51e-05	0.0048578	0.4018447	0.9999296

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	10.319765	0.0143801	1.50e-05	0.0089100	0.7900459	NA

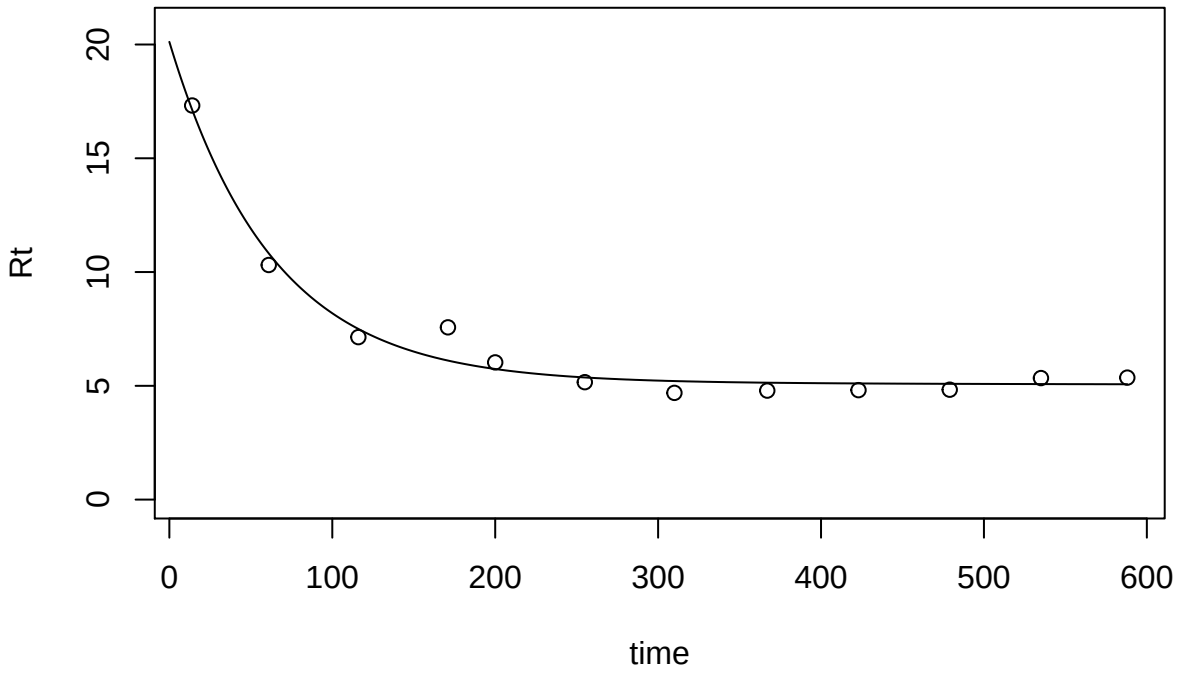
Variable C_SasCul_35:

Decomposition rates over time at 35 degrees for Saskatchewan, cultivated

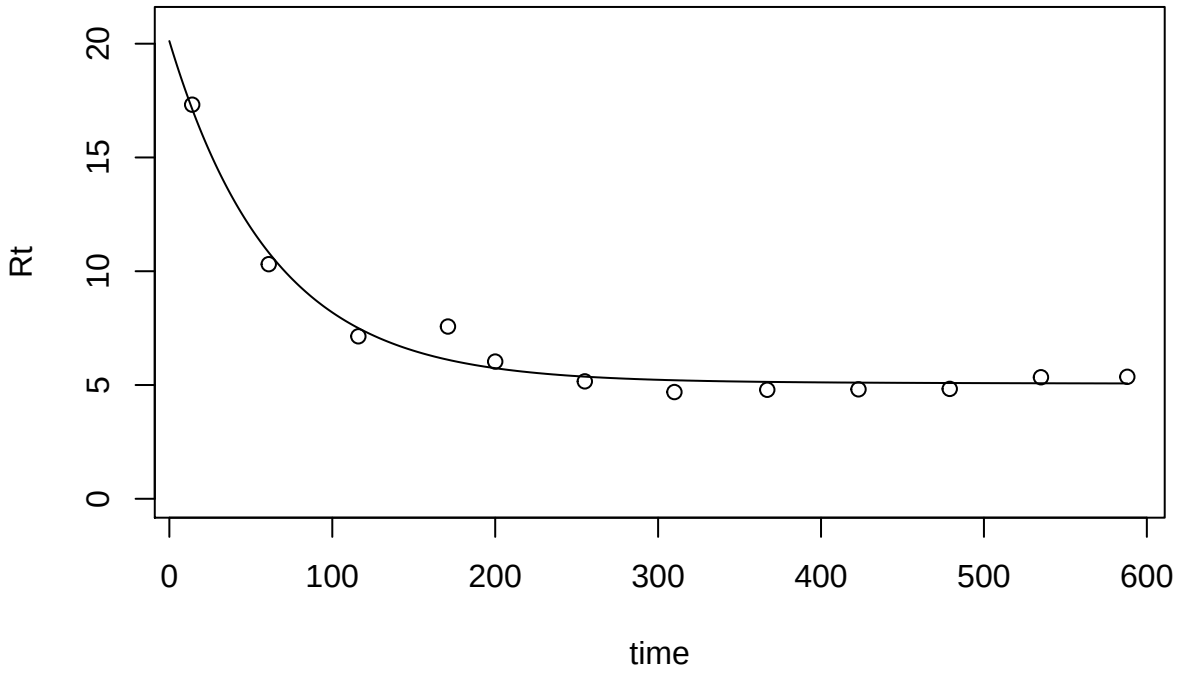
```
## [1] "k1= 0.0158635877594363"
## [2] "k2= 2.25159479262452e-05"
## [3] "proportion of C0 in pool 1= 0.00412404728028509"
```



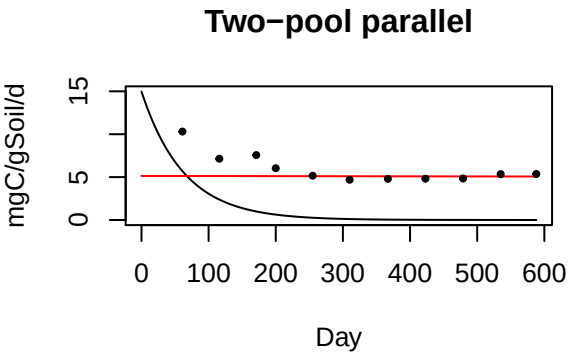

```
## [1] "AIC =  8.53167342466886"
## [1] "k1= 0.0158636132081707"
## [2] "k2= 2.25168482857194e-05"
## [3] "a21= 0.463439223889808"
## [4] "a12= 8.54213805026038e-05"
## [5] "Proportion of C0 in pool 1= 0.00769562229272741"
```

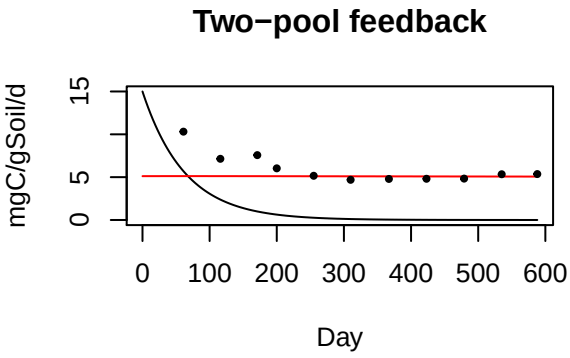


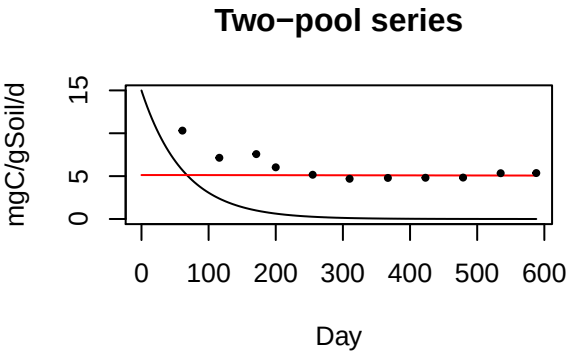

```
## [1] "AIC =  12.5316734244784"
## [1] "k1= 0.0158635087689398"
## [2] "k2= 2.25159246100118e-05"
## [3] "a21= 0.277358890800828"
## [4] "Proportion of C0 in pool 1= 0.00571002321832964"
```




```
## [1] "AIC =  10.5316734222882"
```





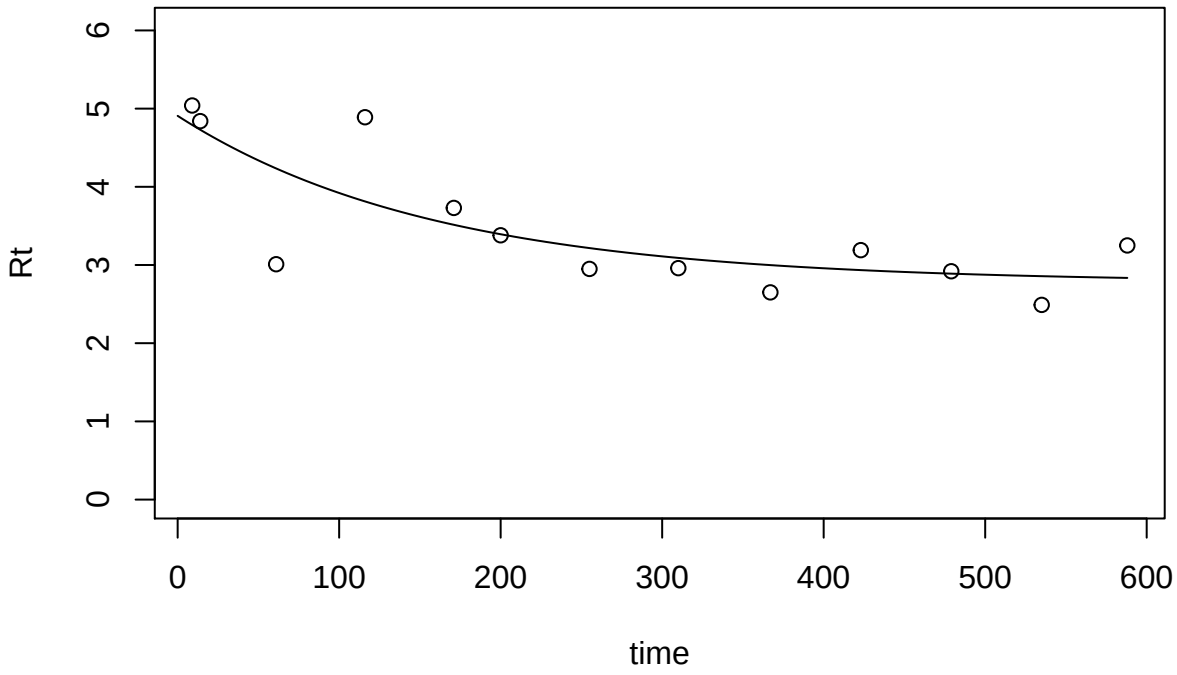


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	8.531673	0.0158636	2.25e-05	0.0041240	NA	NA
Two-pool feedback	12.531673	0.0158636	2.25e-05	0.0076956	0.4634392	8.54e-05
Two-pool series	10.531673	0.0158635	2.25e-05	0.0057100	0.2773589	NA

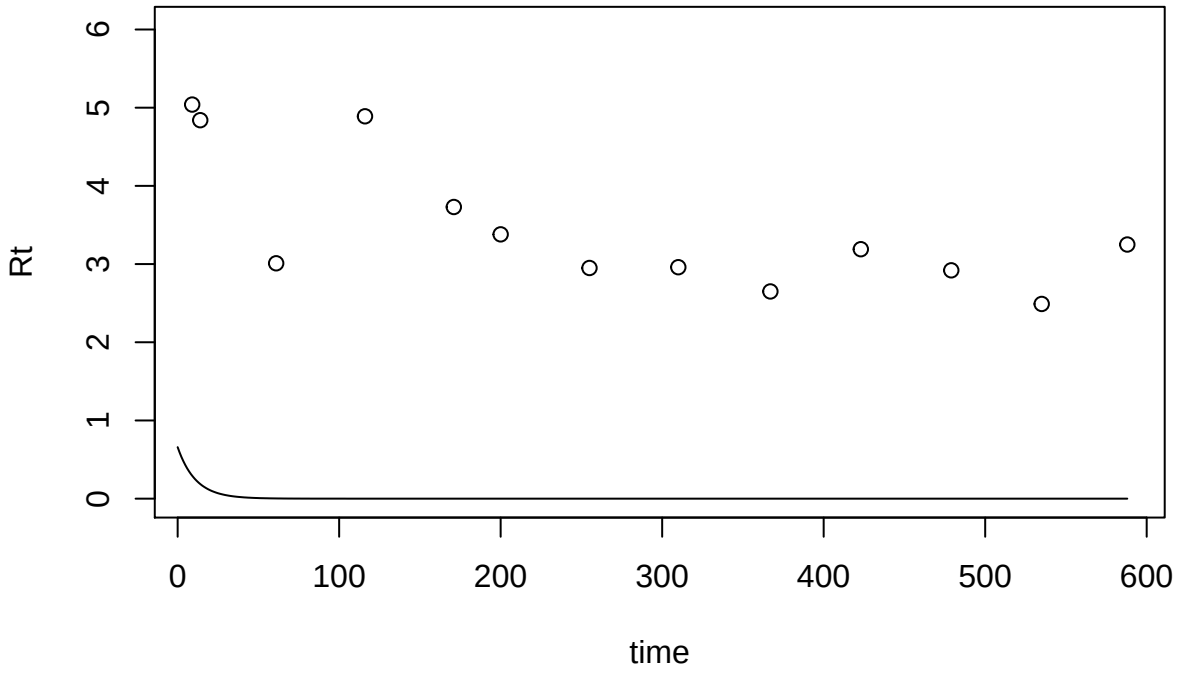
Variable C_NDakNG_15:

Decomposition rates over time at 15 degrees for North Dakota, native grassland

```
## [1] "k1= 0.00627506980894256"
## [2] "k2= 8.64006055649051e-06"
## [3] "proportion of C0 in pool 1= 0.00103842562453998"
```

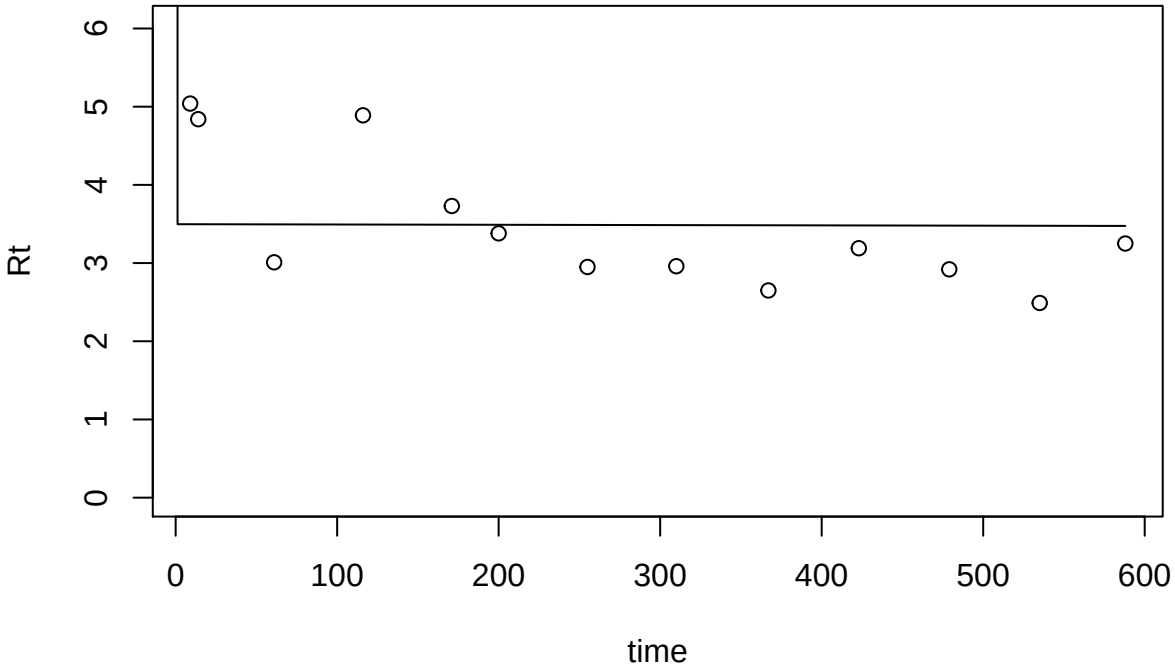



```
## [1] "AIC =  8.7043257761211"
## [1] "k1= 0.0900398754530526"
## [2] "k2= 2.02385882891067e-95"
## [3] "a21= 0.999977420915182"
## [4] "a12= 4.75845126635122e-08"
## [5] "Proportion of C0 in pool 1= 0.999825412882496"
```

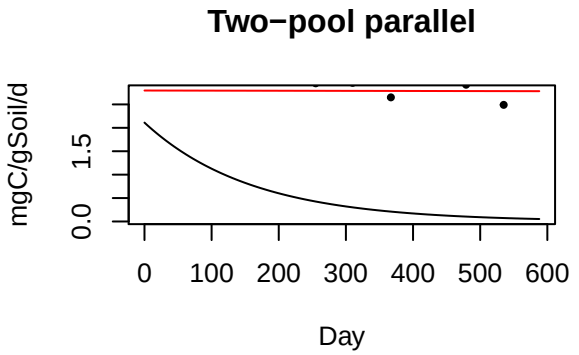


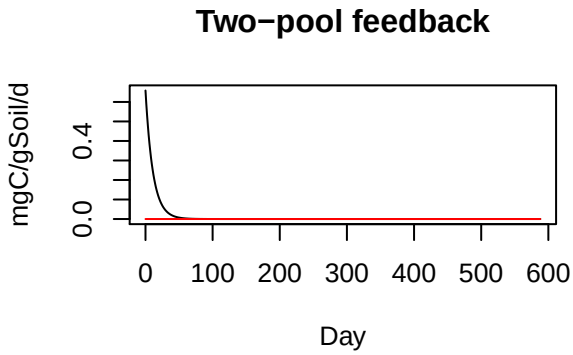

```
## [1] "AIC =  4.94942467436137"
## [1] "k1= 831257564838005"
## [2] "k2= 1.07943144560032e-05"
## [3] "a21= 0.999976381469371"
```

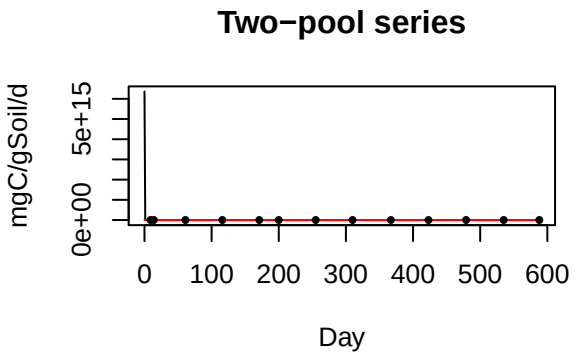
```
## [4] "Proportion of C0 in pool 1= 0.999978750345528"
```




```
## [1] "AIC =  8.70798631610485"
```







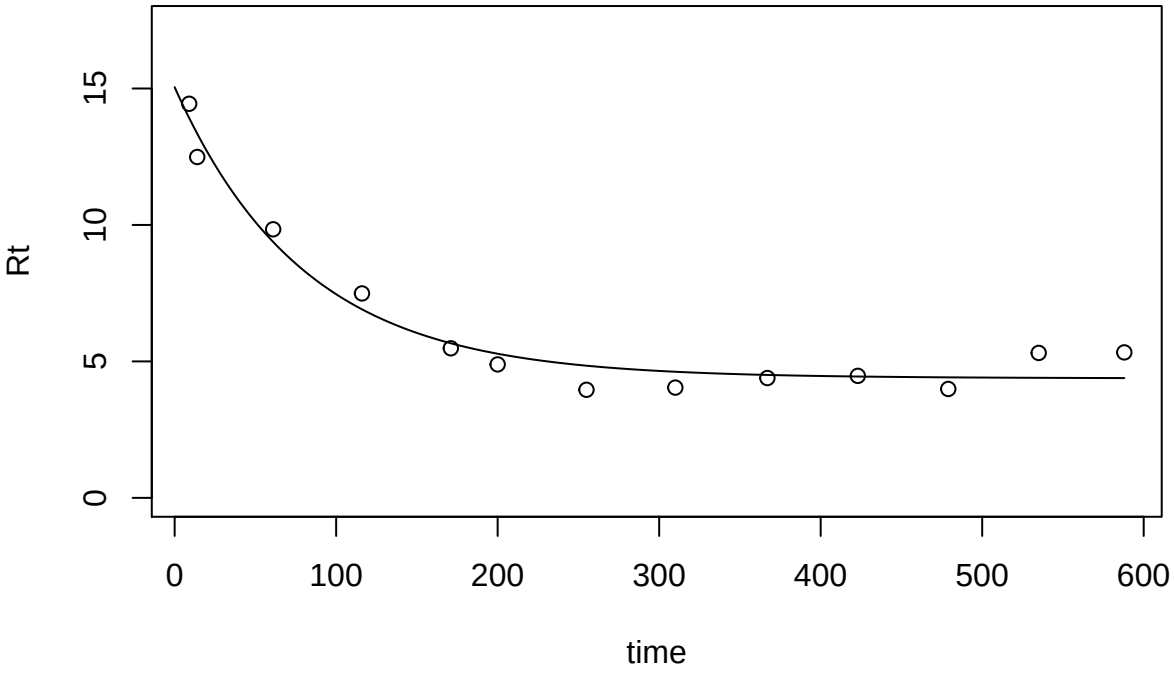
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	8.704326	6.275100e-03	8.60e-06	0.0010384	NA	NA
Two-pool feedback	4.949425	9.003990e-02	0.00e+00	0.9998254	0.9999774	0

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	8.707986	8.312576e+14	1.08e-05	0.9999788	0.9999764	NA

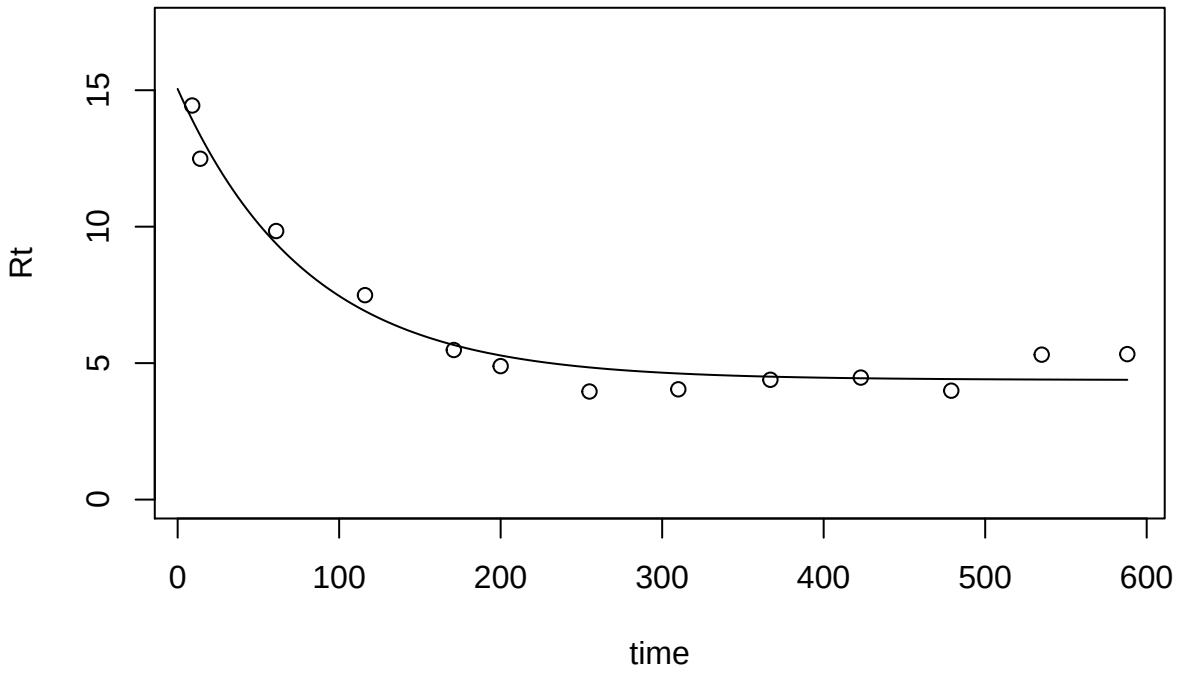
Variable C_NDakNG_25:

Decomposition rates over time at 25 degrees for North Dakota, native grassland

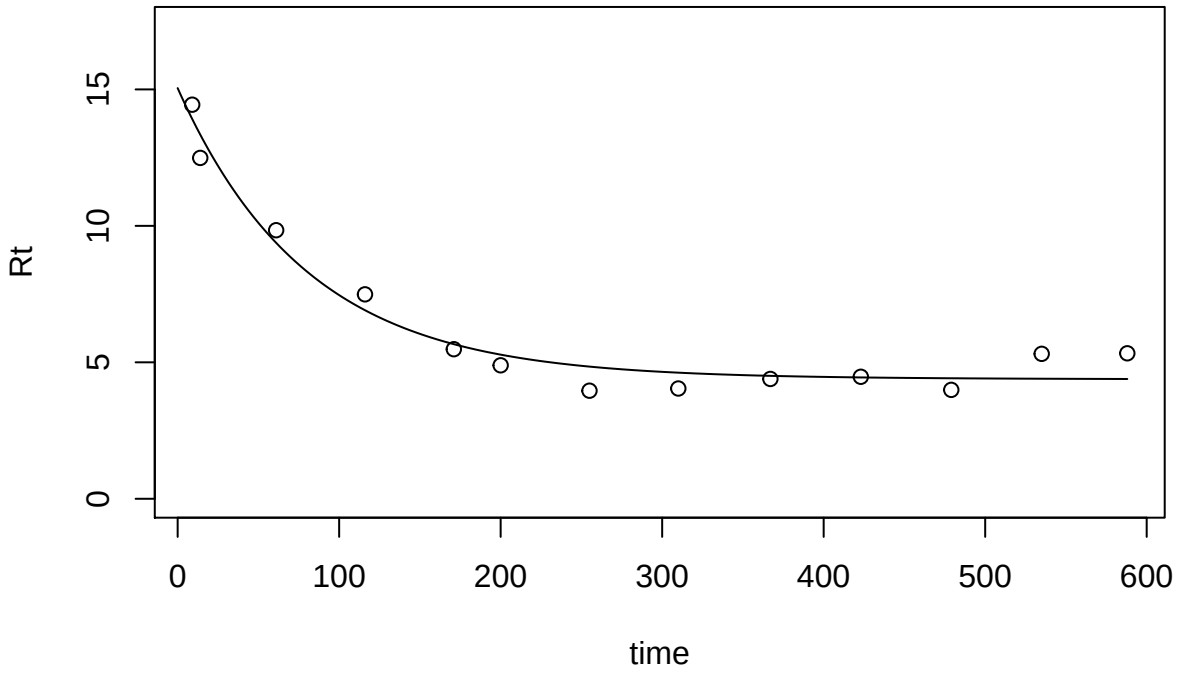
```
## [1] "k1= 0.0124835649053641"
## [2] "k2= 1.36701681151578e-05"
## [3] "proportion of C0 in pool 1= 0.00262824871695877"
```



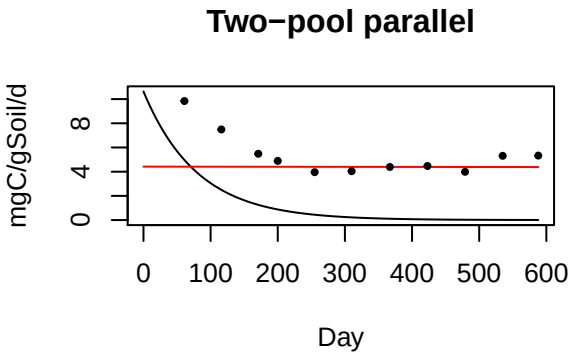

```
## [1] "AIC =  8.00751369973041"
## [1] "k1= 0.0124751648801462"
## [2] "k2= 2.19006208674215e-05"
## [3] "a21= 0.37541578130539"
## [4] "a12= 0.999957309953755"
## [5] "Proportion of C0 in pool 1= 0.00596051741843628"
```

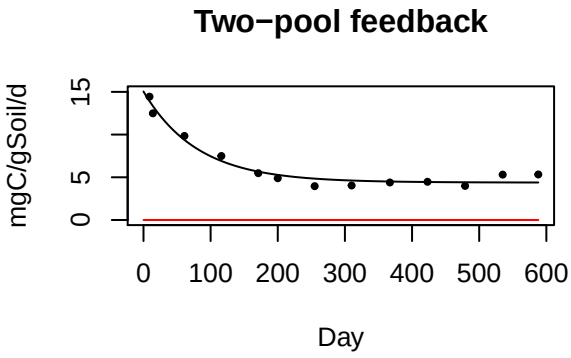


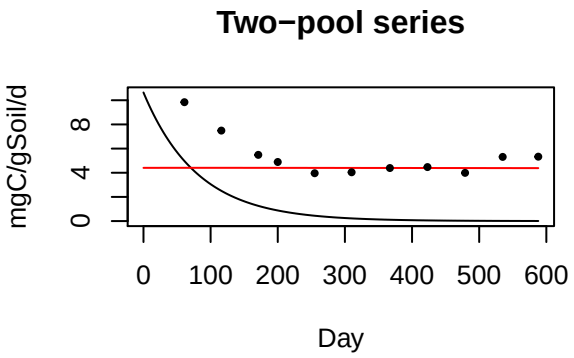

```
## [1] "AIC =  12.0075136999219"
## [1] "k1= 0.0124834692004213"
## [2] "k2= 1.36701417988398e-05"
## [3] "a21= 0.521978143597835"
## [4] "Proportion of C0 in pool 1= 0.00550480717309859"
```




```
## [1] "AIC =  10.0075137002506"
```





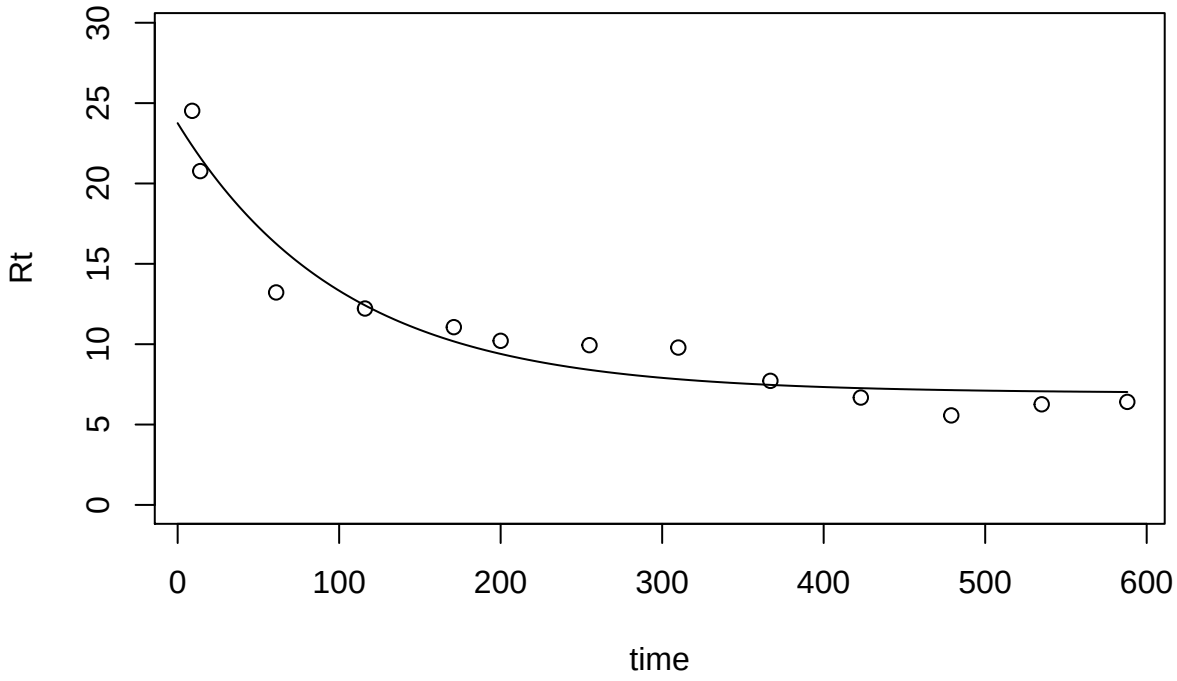


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	8.007514	0.0124836	1.37e-05	0.0026282	NA	NA
Two-pool feedback	12.007514	0.0124752	2.19e-05	0.0059605	0.3754158	0.9999573
Two-pool series	10.007514	0.0124835	1.37e-05	0.0055048	0.5219781	NA

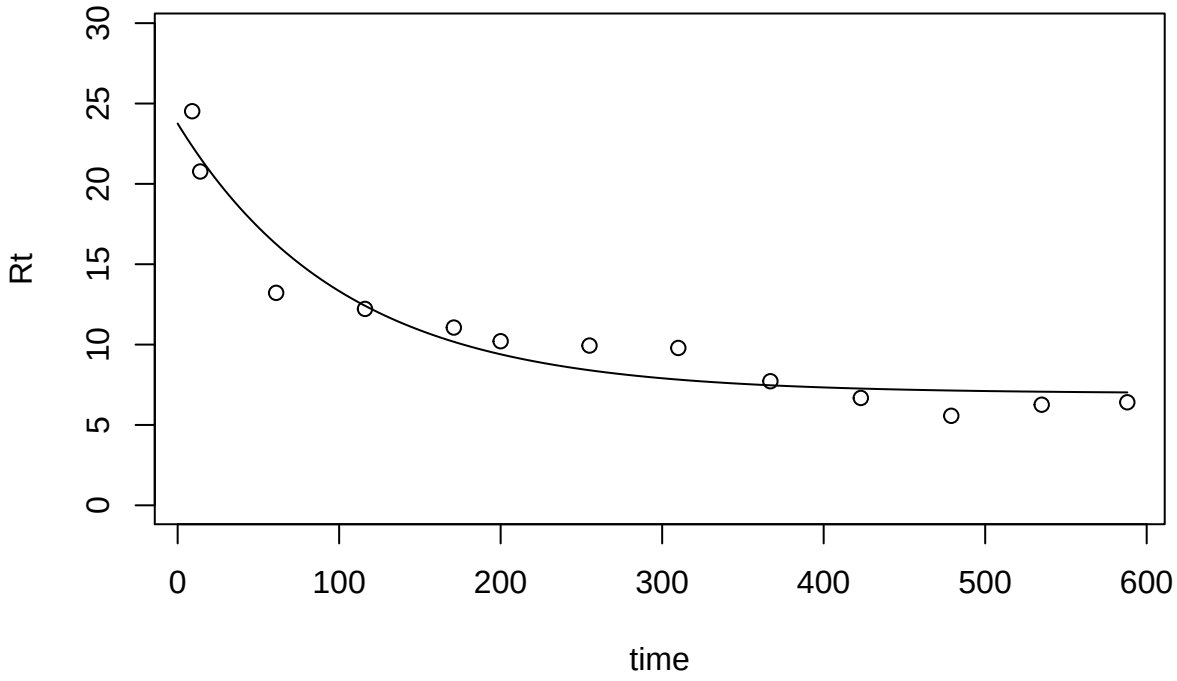
Variable C_NDakNG_35:

Decomposition rates over time at 35 degrees for North Dakota, native grassland

```
## [1] "k1= 0.00977073088761942"
## [2] "k2= 2.19111424150348e-05"
## [3] "proportion of C0 in pool 1= 0.00527245794298453"
```

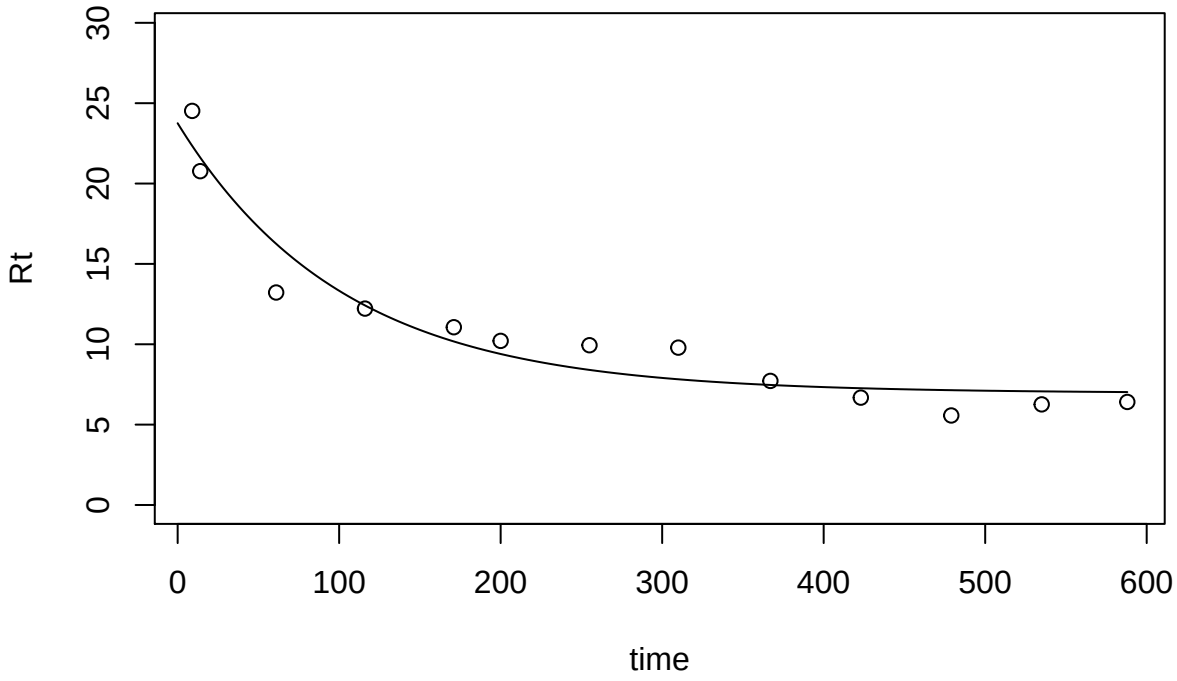



```
## [1] "AIC =  4.59466743967986"
## [1] "k1= 0.00977078025191662"
## [2] "k2= 2.19118509856345e-05"
## [3] "a21= 0.346893003827267"
## [4] "a12= 8.80051730298148e-05"
## [5] "Proportion of C0 in pool 1= 0.00808266264995589"
```

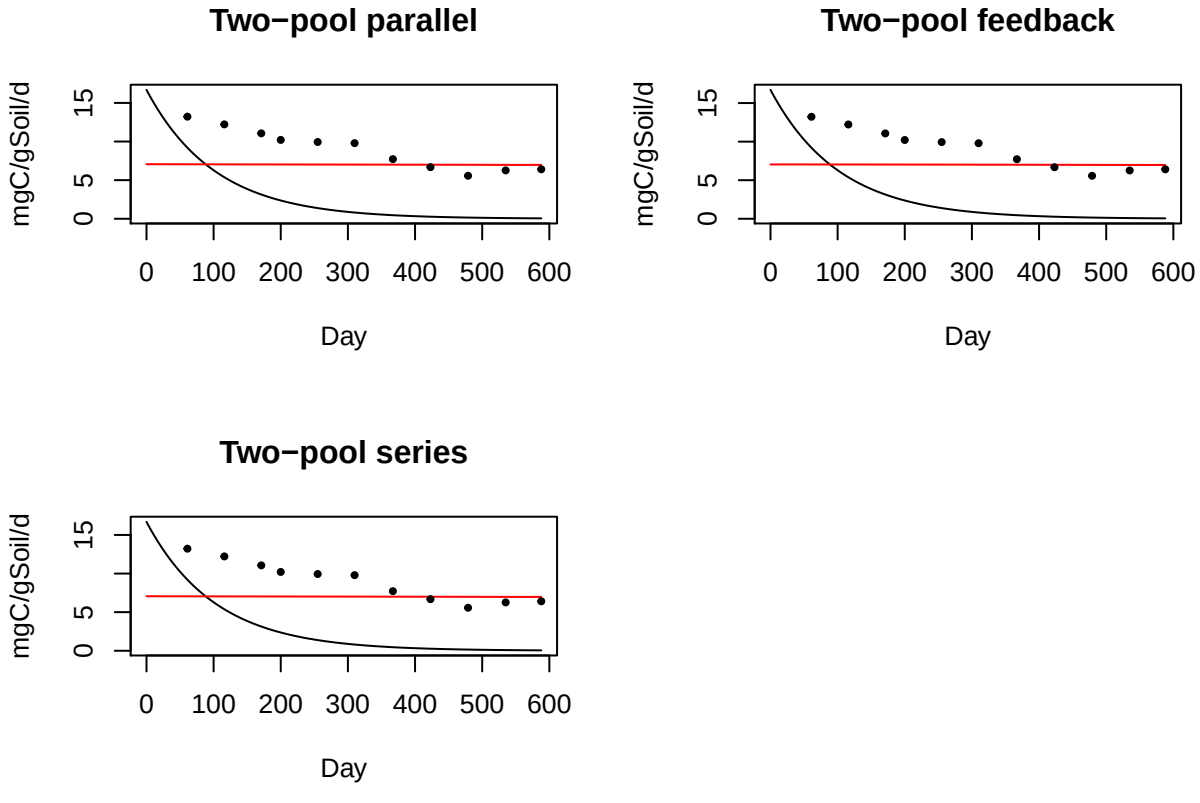



```
## [1] "AIC =  8.59466743976506"
## [1] "k1= 0.00977083456789223"
## [2] "k2= 2.19112224315037e-05"
## [3] "a21= 0.0877910786930289"
```

```
## [4] "Proportion of C0 in pool 1= 0.00578102402578806"
```




```
## [1] "AIC =  6.59466743783141"
```



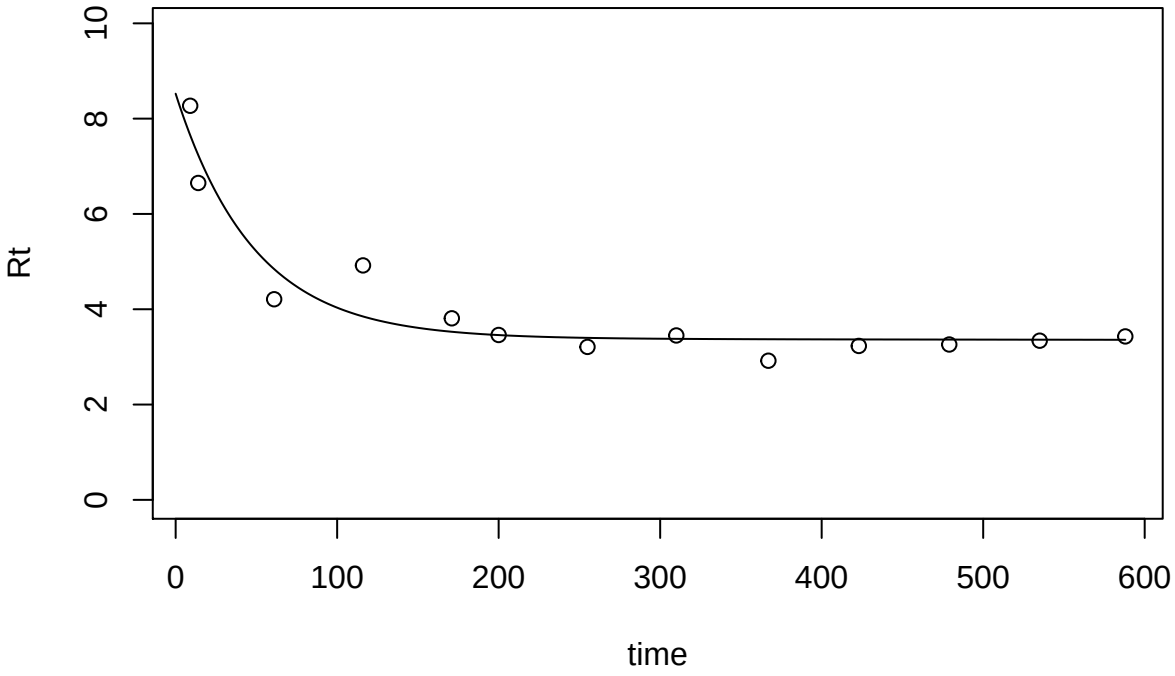
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	4.594667	0.0097707	2.19e-05	0.0052725	NA	NA
Two-pool feedback	8.594667	0.0097708	2.19e-05	0.0080827	0.3468930	8.8e-05

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	6.594667	0.0097708	2.19e-05	0.0057810	0.0877911	NA

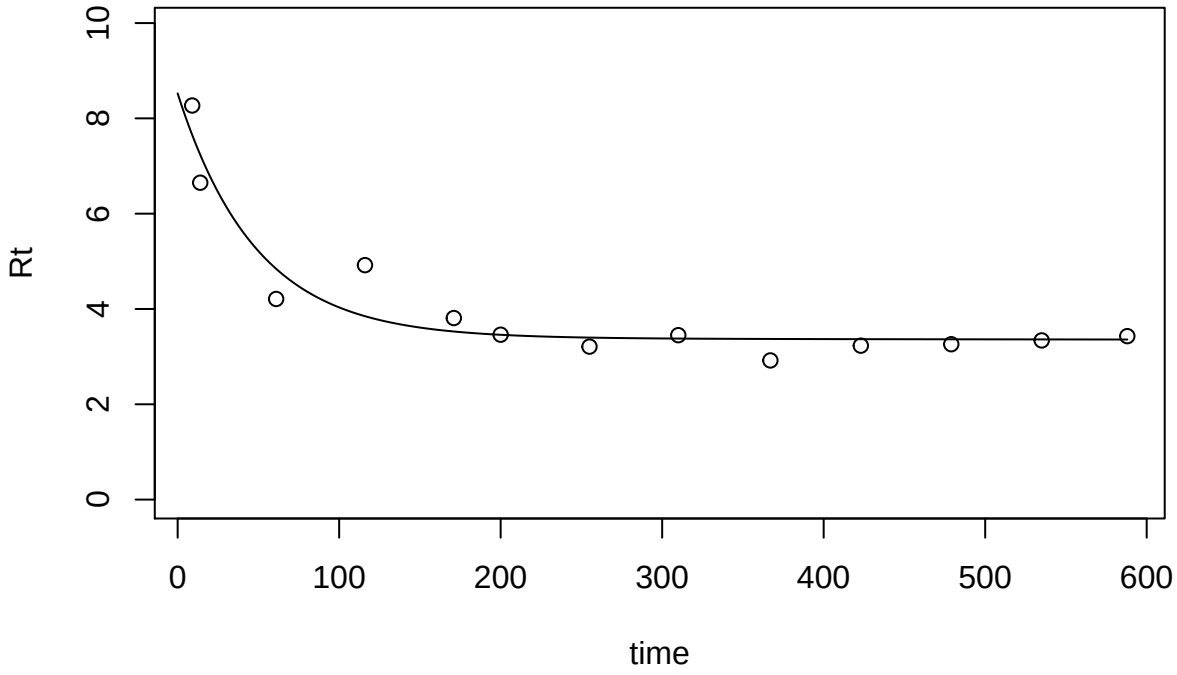
Variable C_NDakCul_15:

Decomposition rates over time at 15 degrees for North Dakota, cultivated

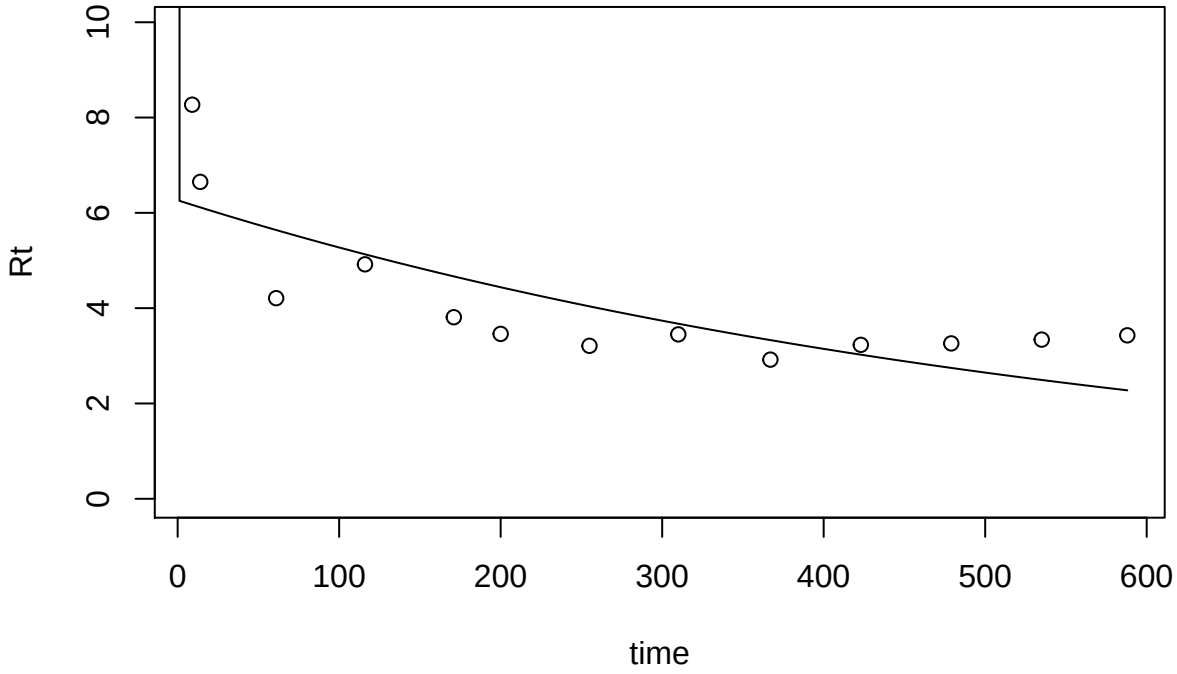
```
## [1] "k1= 0.0206114864505163"
## [2] "k2= 1.20925954239206e-05"
## [3] "proportion of C0 in pool 1= 0.00089071444758887"
```



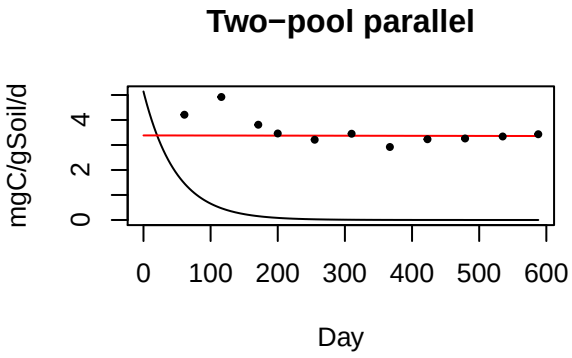

```
## [1] "AIC =  9.19699886193404"
## [1] "k1= 0.020617111965257"
## [2] "k2= 1.20929001319302e-05"
## [3] "a21= 0.914886305394578"
## [4] "a12= 2.98390947711669e-06"
## [5] "Proportion of C0 in pool 1= 0.0105293861728904"
```

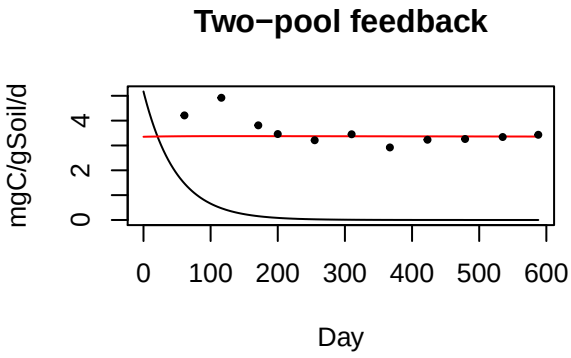


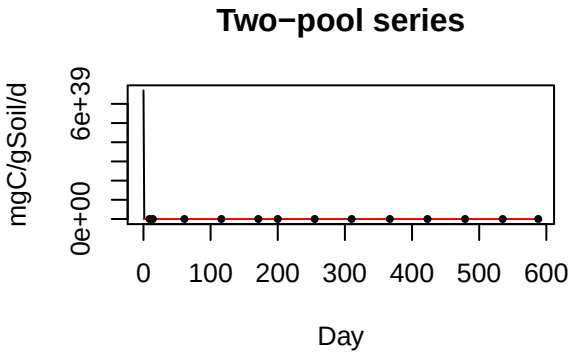

```
## [1] "AIC =  13.1969988554136"
## [1] "k1= 2.42370377138266e+34"
## [2] "k2= 0.00172199360205585"
## [3] "a21= 0.0129709907553012"
## [4] "Proportion of C0 in pool 1= 0.999978578453881"
```




```
## [1] "AIC =  8.20310776638516"
```





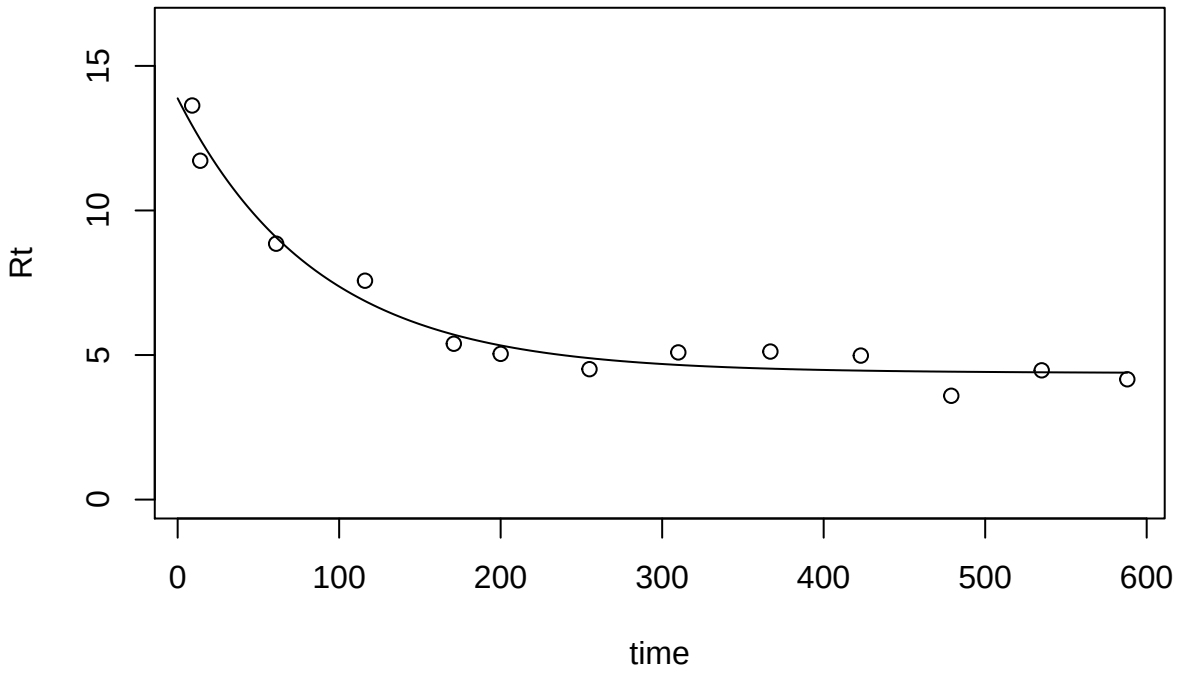


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	9.196999	2.061150e-02	0.0000121	0.0008907	NA	NA
Two-pool feedback	13.196999	2.061710e-02	0.0000121	0.0105294	0.9148863	3e-06
Two-pool series	8.203108	2.423704e+34	0.0017220	0.9999786	0.0129710	NA

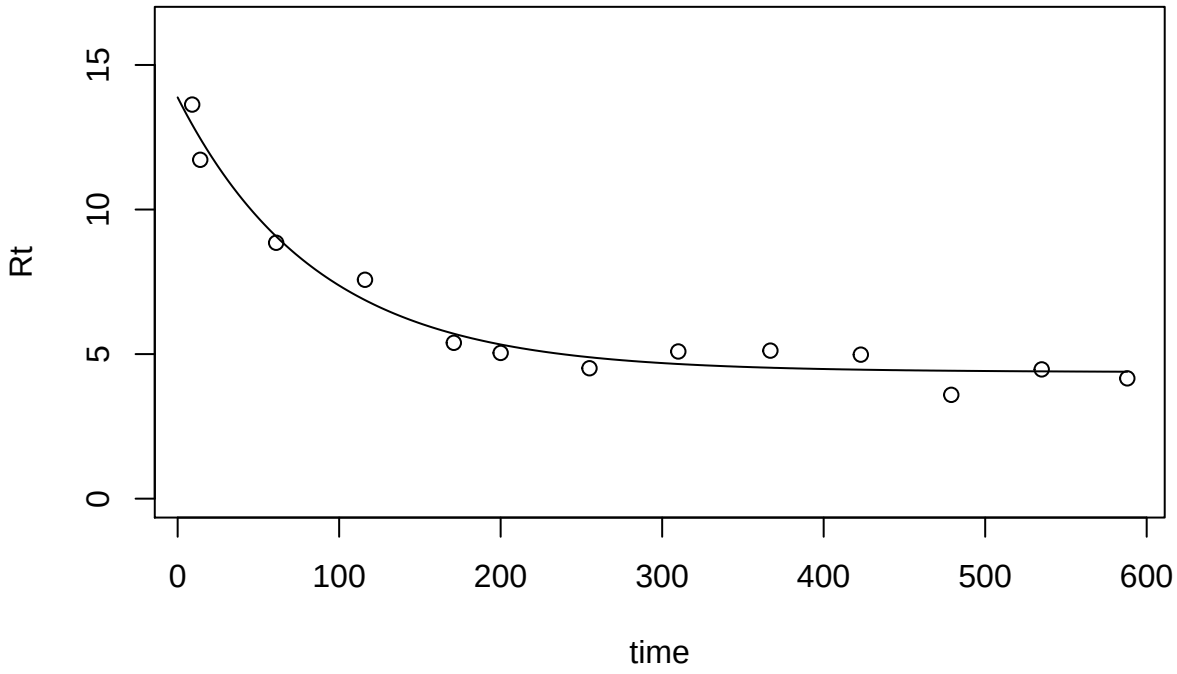
Variable C_NDakCul_25:

Decomposition rates over time at 25 degrees for North Dakota, cultivated

```
## [1] "k1= 0.0116257004653511"
## [2] "k2= 1.58351717521099e-05"
## [3] "proportion of C0 in pool 1= 0.00290530167845371"
```

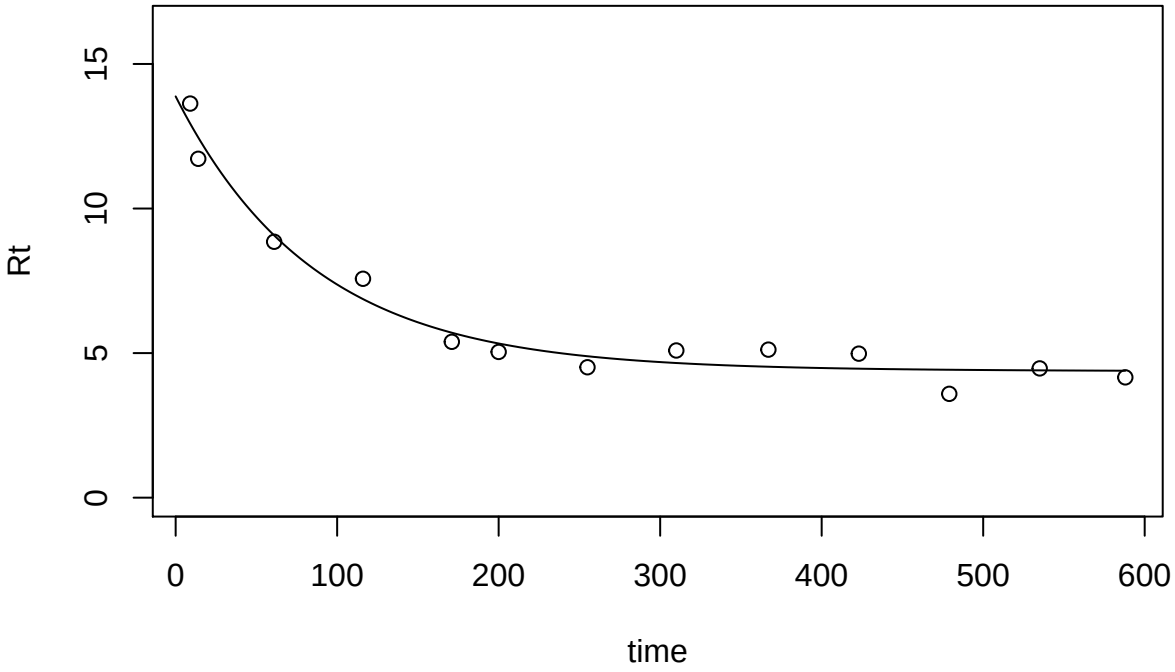



```
## [1] "AIC =  8.65198521377316"
## [1] "k1= 0.0116162553999295"
## [2] "k2= 2.52891556401975e-05"
## [3] "a21= 0.373340089129721"
## [4] "a12= 0.999964308219526"
## [5] "Proportion of C0 in pool 1= 0.00680881807261752"
```

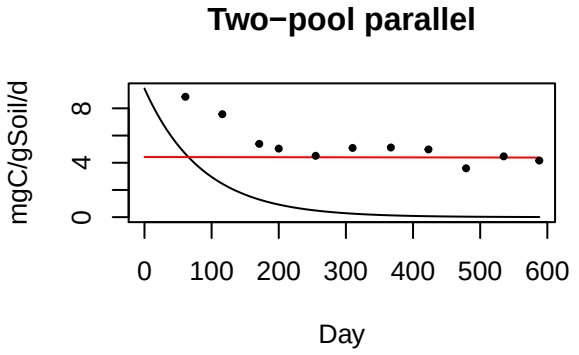


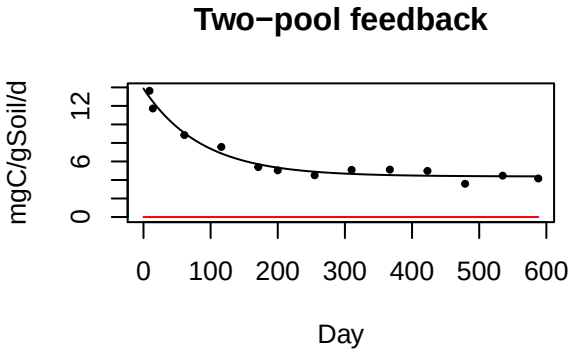

```
## [1] "AIC =  12.6519852132053"
## [1] "k1= 0.0116257092627602"
## [2] "k2= 1.58351746764584e-05"
## [3] "a21= 0.433423545885486"
```

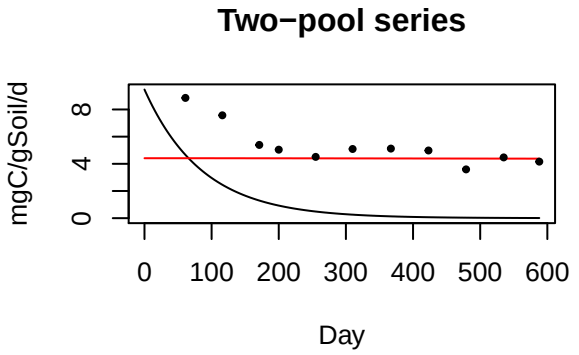
```
## [4] "Proportion of C0 in pool 1= 0.00513315798891295"
```




```
## [1] "AIC =  10.6519852130781"
```







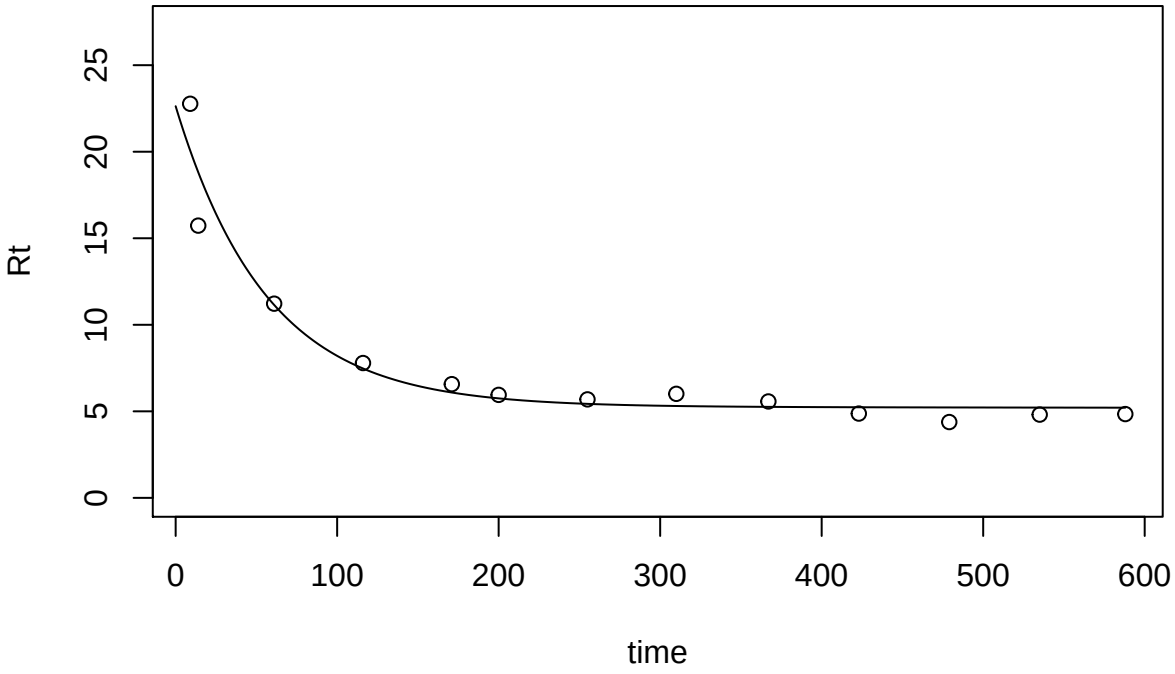
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	8.651985	0.0116257	1.58e-05	0.0029053	NA	NA
Two-pool feedback	12.651985	0.0116163	2.53e-05	0.0068088	0.3733401	0.9999643

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	10.651985	0.0116257	1.58e-05	0.0051332	0.4334235	NA

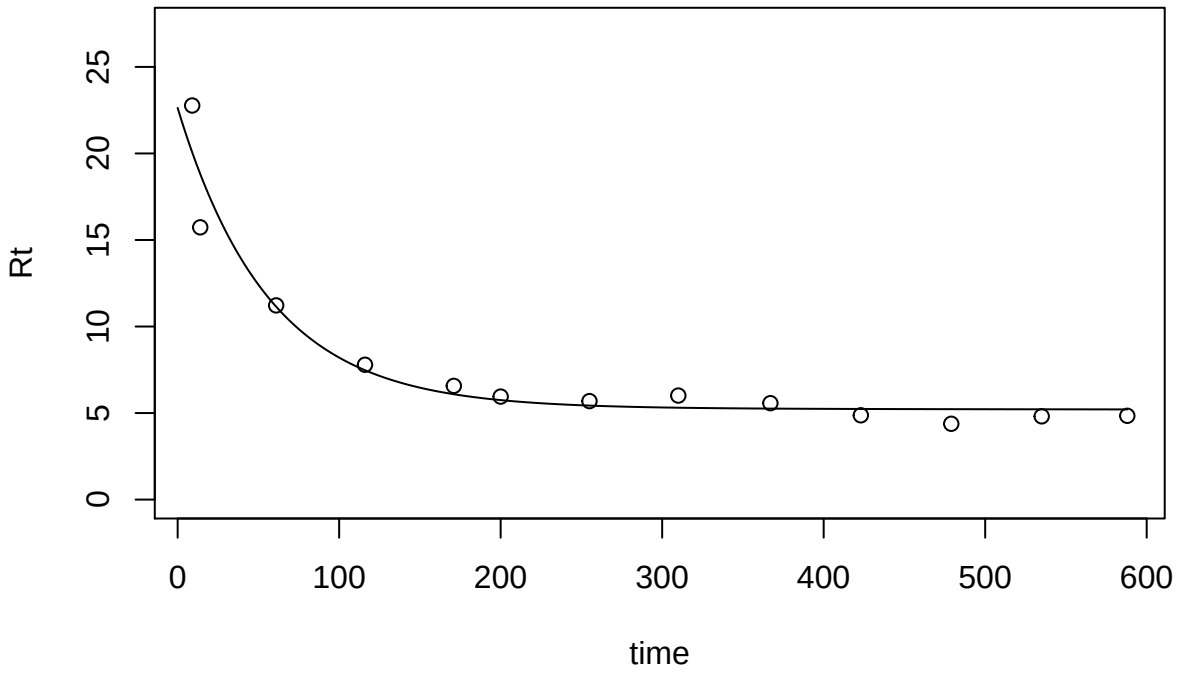
Variable C_NDakCul_35:

Decomposition rates over time at 35 degrees for North Dakota, cultivated

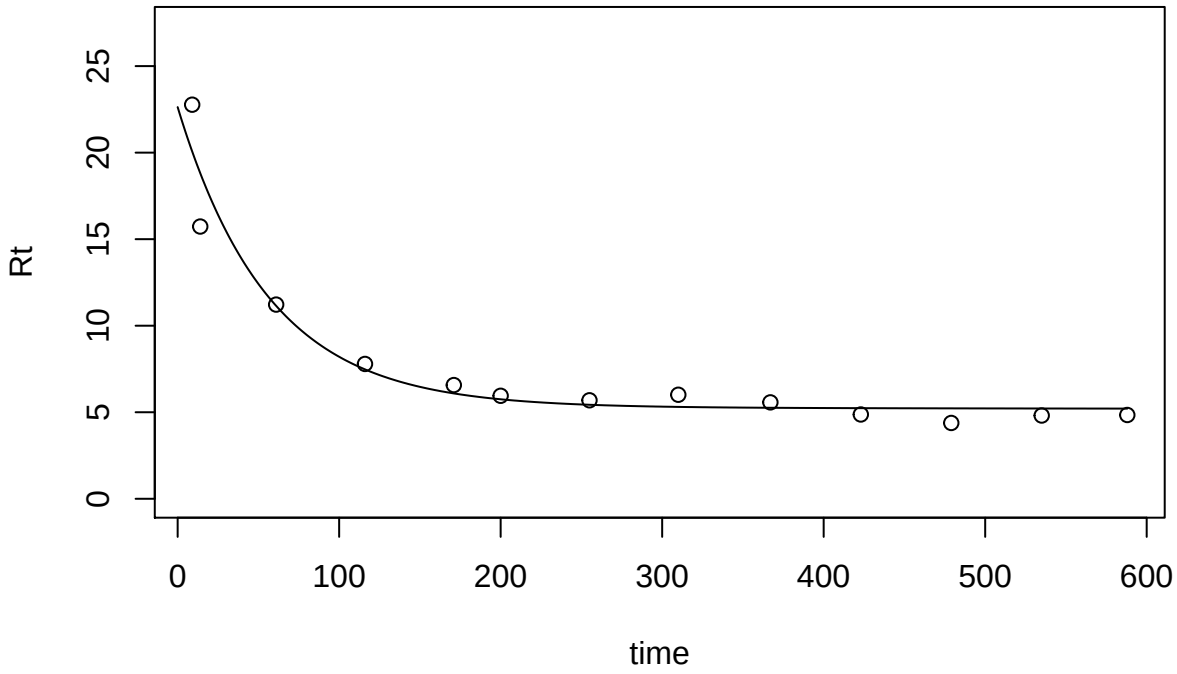
```
## [1] "k1= 0.0177370979848877"
## [2] "k2= 1.88793657740906e-05"
## [3] "proportion of C0 in pool 1= 0.00349590822159246"
```



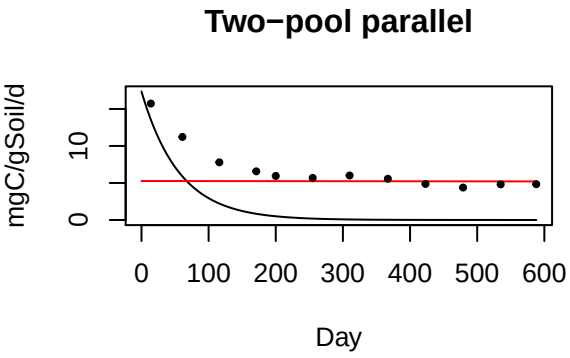

```
## [1] "AIC =  5.24339755520998"
## [1] "k1= 0.017737205288117"
## [2] "k2= 1.88801372729086e-05"
## [3] "a21= 0.514318015835961"
## [4] "a12= 7.68203026461078e-05"
## [5] "Proportion of C0 in pool 1= 0.00720611660474207"
```

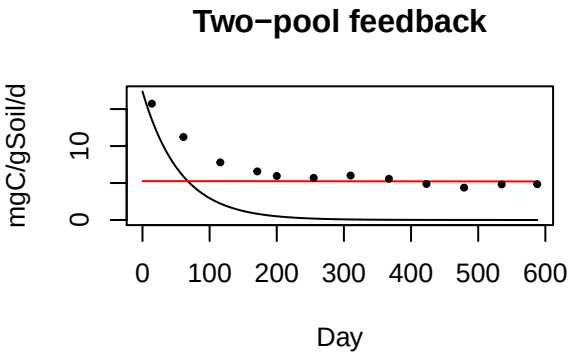


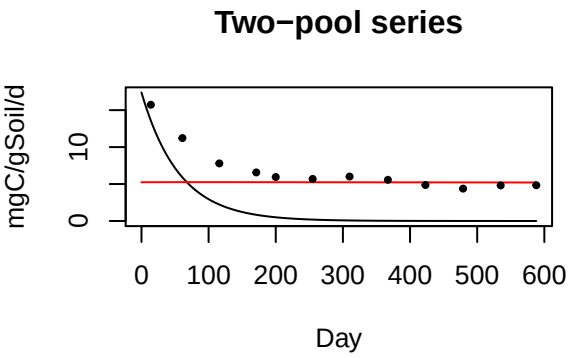

```
## [1] "AIC =  9.24339755534105"
## [1] "k1= 0.0177363994500619"
## [2] "k2= 1.88792016902519e-05"
## [3] "a21= 0.586947625657827"
## [4] "Proportion of C0 in pool 1= 0.00847674796489722"
```




```
## [1] "AIC =  7.24339754748357"
```





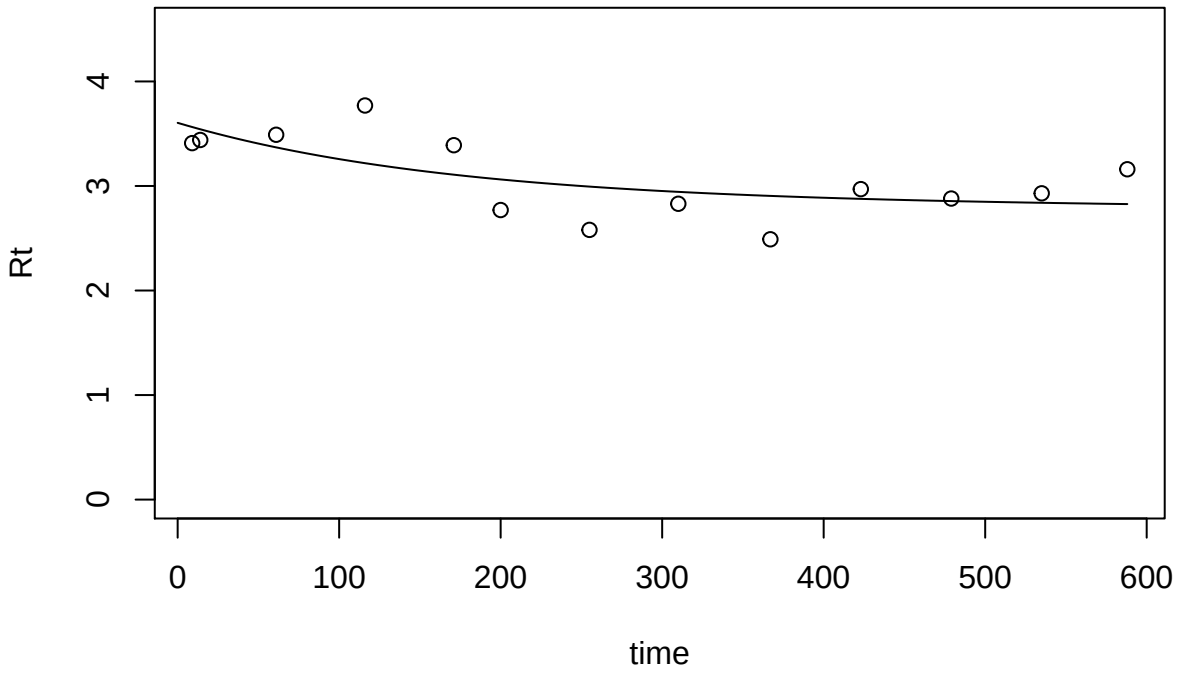


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	5.243398	0.0177371	1.89e-05	0.0034959	NA	NA
Two-pool feedback	9.243398	0.0177372	1.89e-05	0.0072061	0.5143180	7.68e-05
Two-pool series	7.243398	0.0177364	1.89e-05	0.0084767	0.5869476	NA

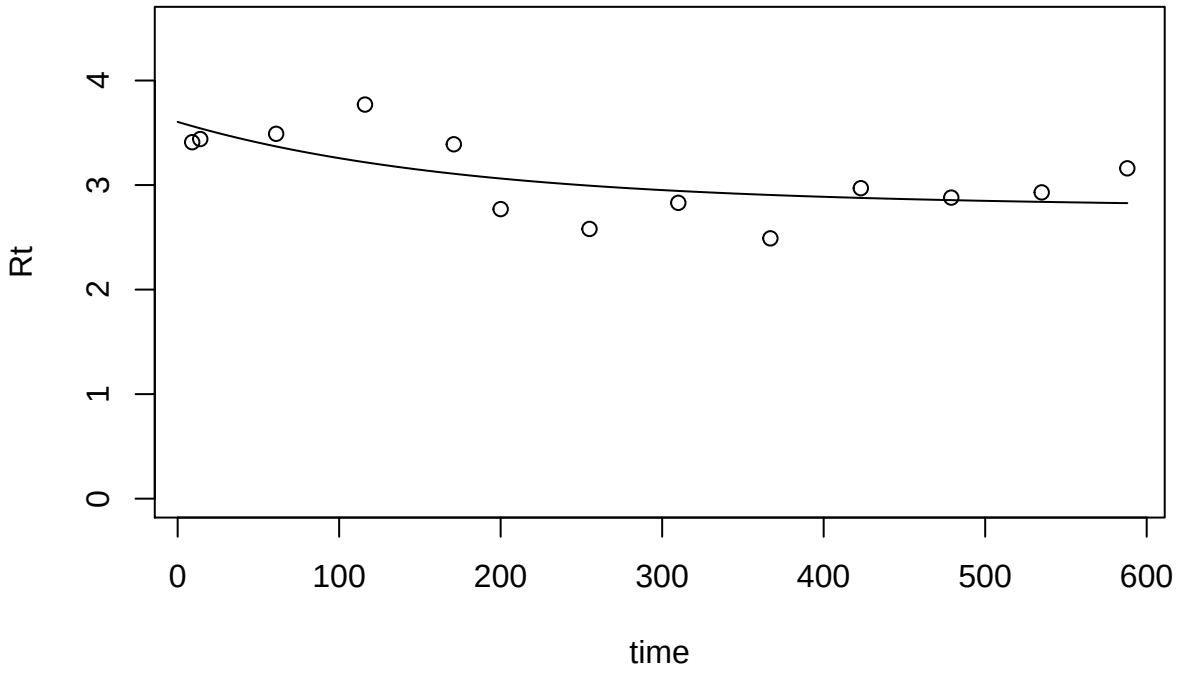
Variable C_ColoNG_15:

Decomposition rates over time at 35 degrees for Colorado, native grassland

```
## [1] "k1= 0.00592995826100533"
## [2] "k2= 2.4548404349743e-05"
## [3] "proportion of C0 in pool 1= 0.00110451919005755"
```

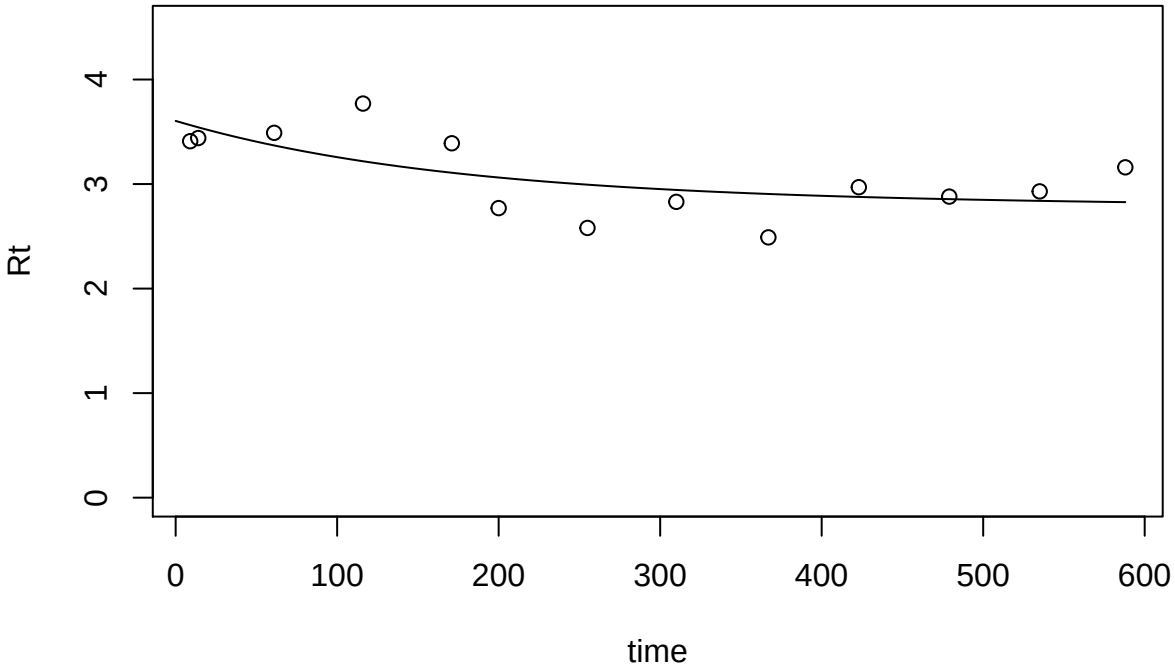



```
## [1] "AIC =  11.1227082776003"
## [1] "k1= 0.00592237463650072"
## [2] "k2= 3.32172512788184e-05"
## [3] "a21= 0.2598939981931"
## [4] "a12= 0.999959465820421"
## [5] "Proportion of C0 in pool 1= 0.00708843533275733"
```

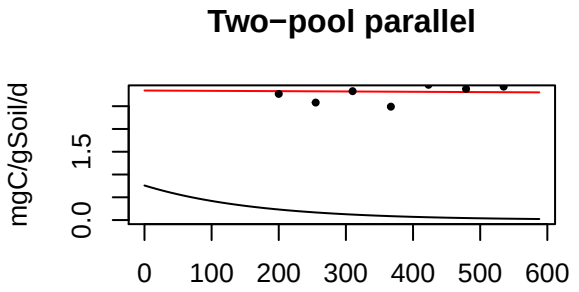


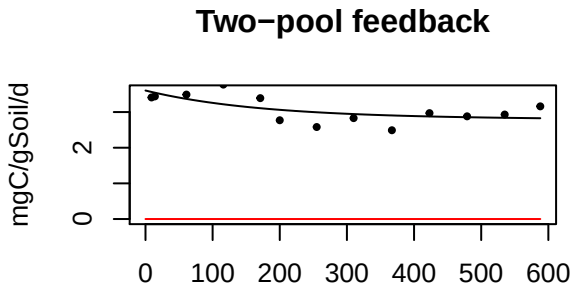

```
## [1] "AIC =  15.1227082817664"
## [1] "k1= 0.00593076923594564"
## [2] "k2= 2.45486343593209e-05"
## [3] "a21= 0.877093380709303"
```

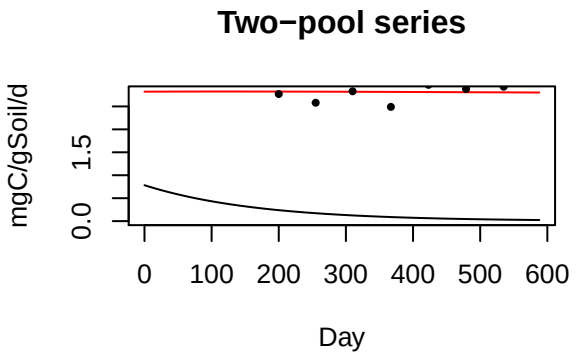
```
## [4] "Proportion of C0 in pool 1= 0.00925997300657927"
```




```
## [1] "AIC =  13.1227082831809"
```







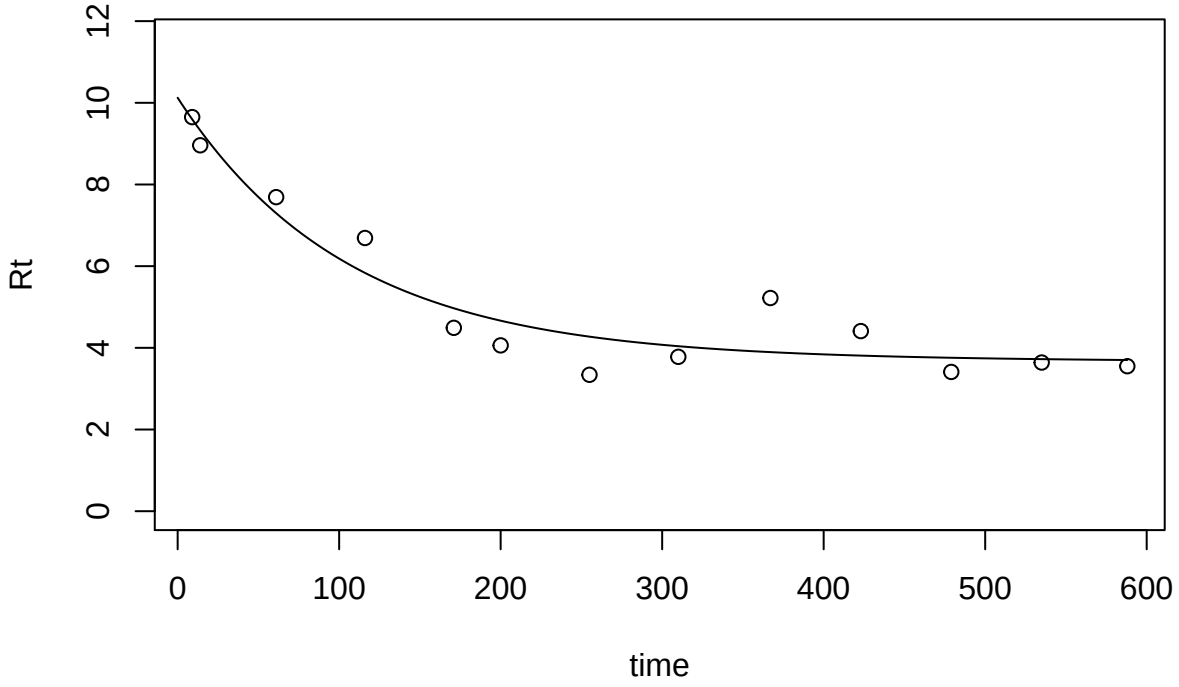
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	11.12271	0.0059300	2.45e-05	0.0011045	NA	NA
Two-pool feedback	15.12271	0.0059224	3.32e-05	0.0070884	0.2598940	0.9999595

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	13.12271	0.0059308	2.45e-05	0.0092600	0.8770934	NA

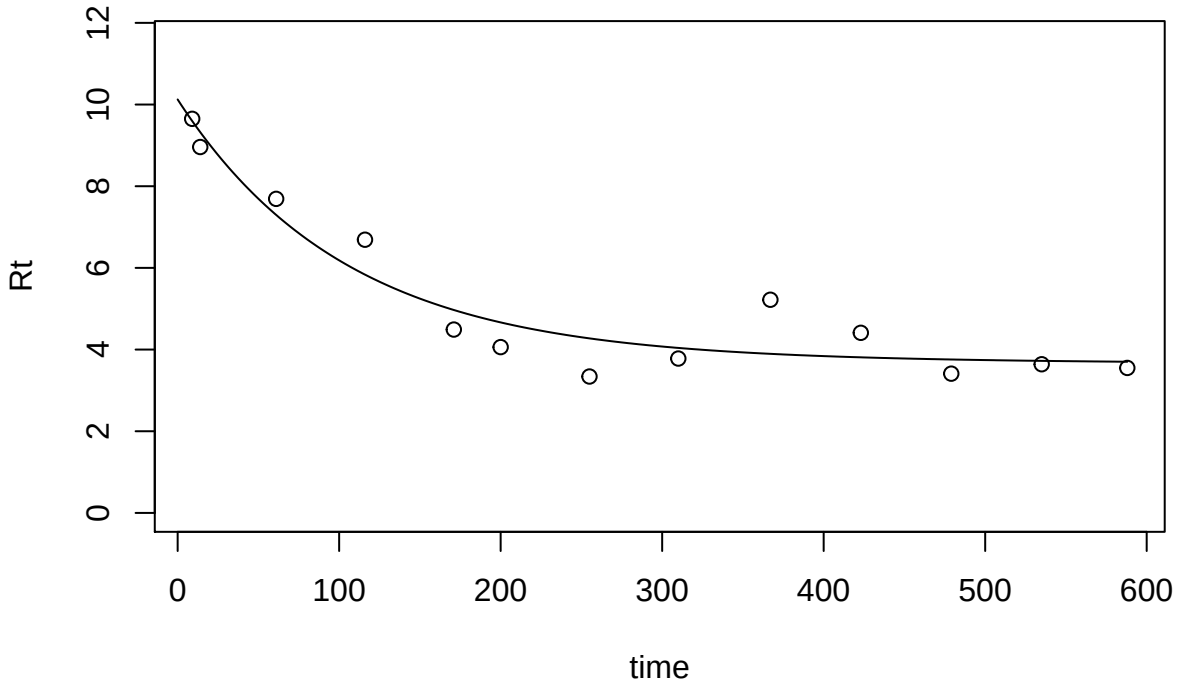
Variable C_ColoNG_25:

Decomposition rates over time at 25 degrees for Colorado, native grassland

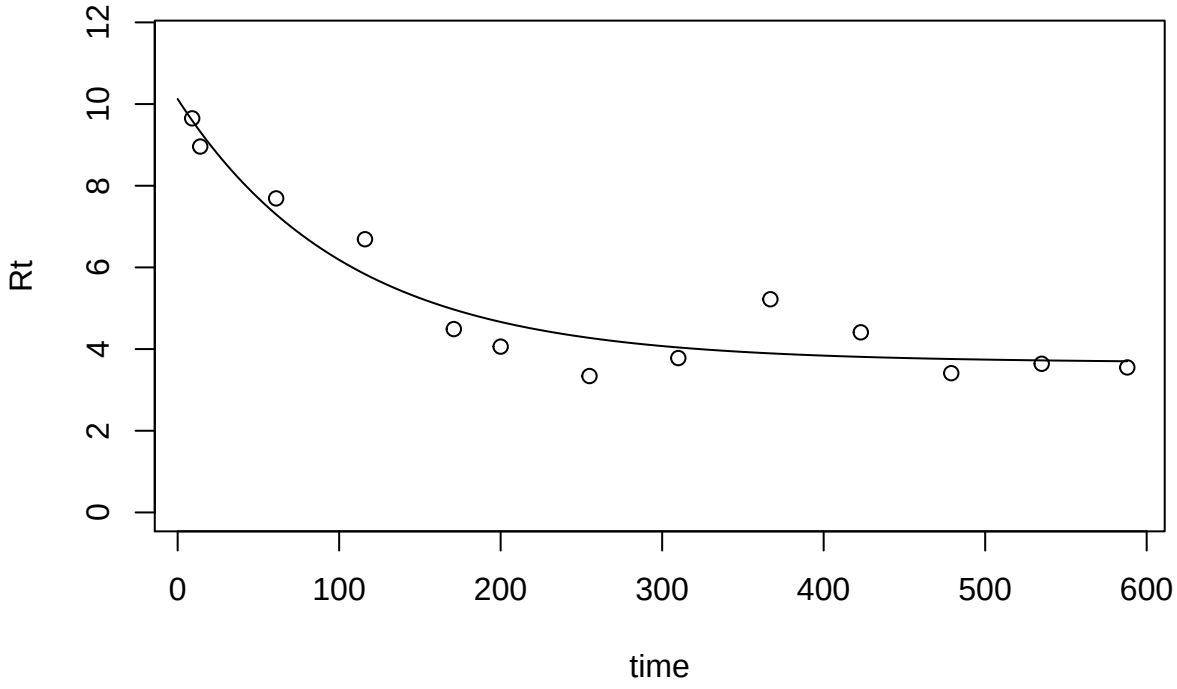
```
## [1] "k1= 0.00957452604931666"
## [2] "k2= 3.25139050149773e-05"
## [3] "proportion of C0 in pool 1= 0.00573935763527689"
```



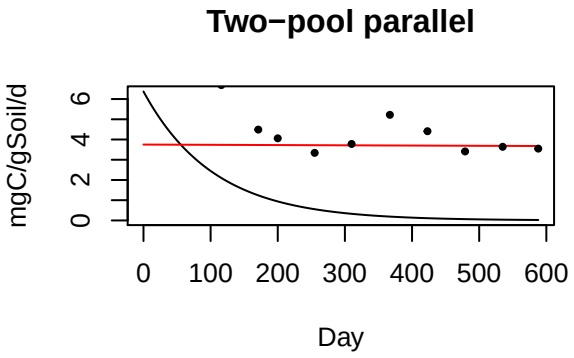

```
## [1] "AIC =  7.98438013452841"
## [1] "k1= 0.00957464490485891"
## [2] "k2= 3.25148573796882e-05"
## [3] "a21= 0.341074381771417"
## [4] "a12= 7.63748999288993e-05"
## [5] "Proportion of C0 in pool 1= 0.00872570361557395"
```

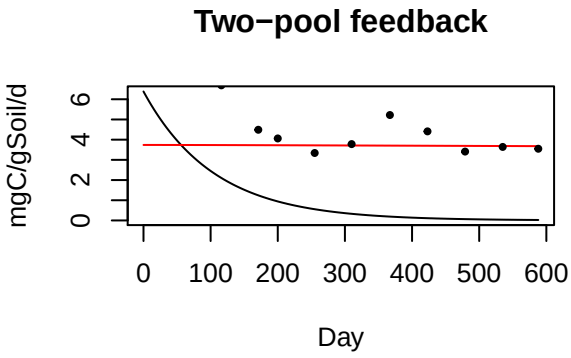


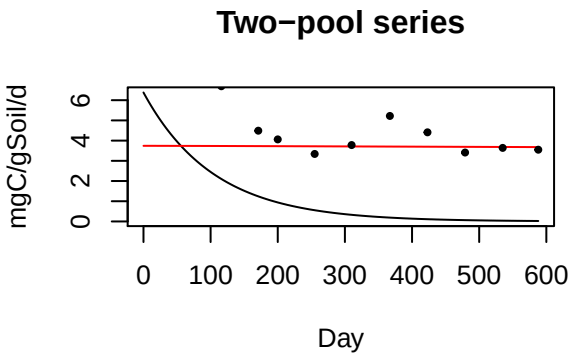

```
## [1] "AIC =  11.9843801345463"
## [1] "k1= 0.00957429448796298"
## [2] "k2= 3.25137066423259e-05"
## [3] "a21= 0.245462466125545"
## [4] "Proportion of C0 in pool 1= 0.00761503637034766"
```




```
## [1] "AIC =  9.98438013038674"
```





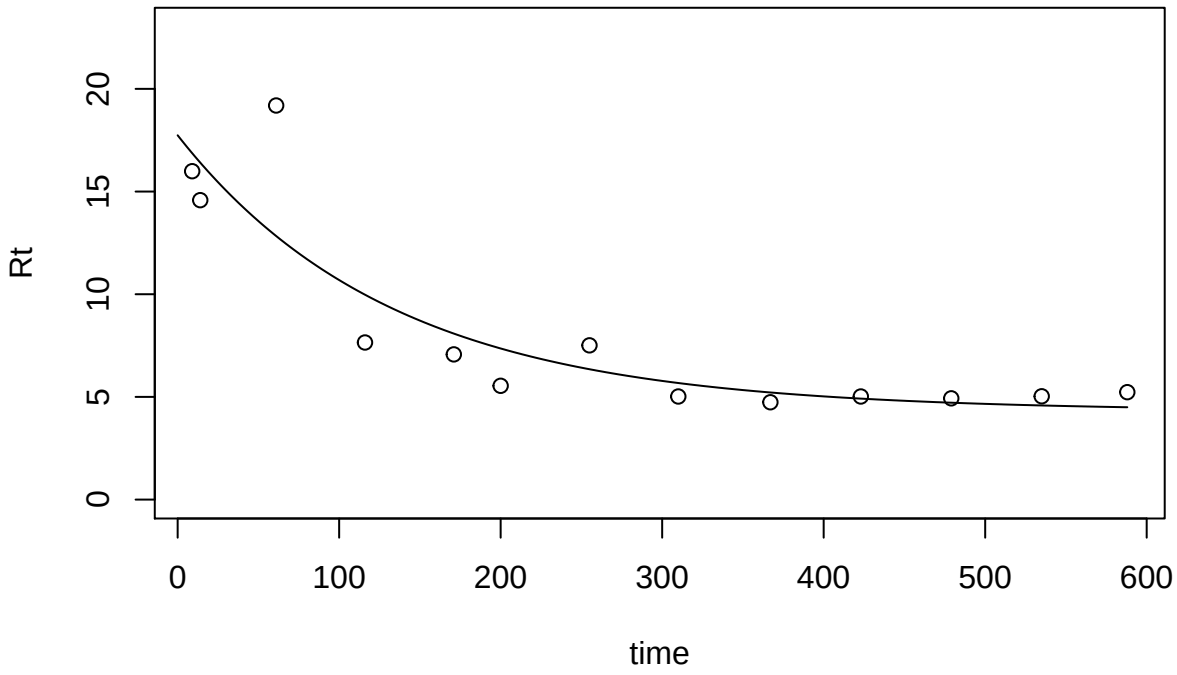


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	7.98438	0.0095745	3.25e-05	0.0057394	NA	NA
Two-pool feedback	11.98438	0.0095746	3.25e-05	0.0087257	0.3410744	7.64e-05
Two-pool series	9.98438	0.0095743	3.25e-05	0.0076150	0.2454625	NA

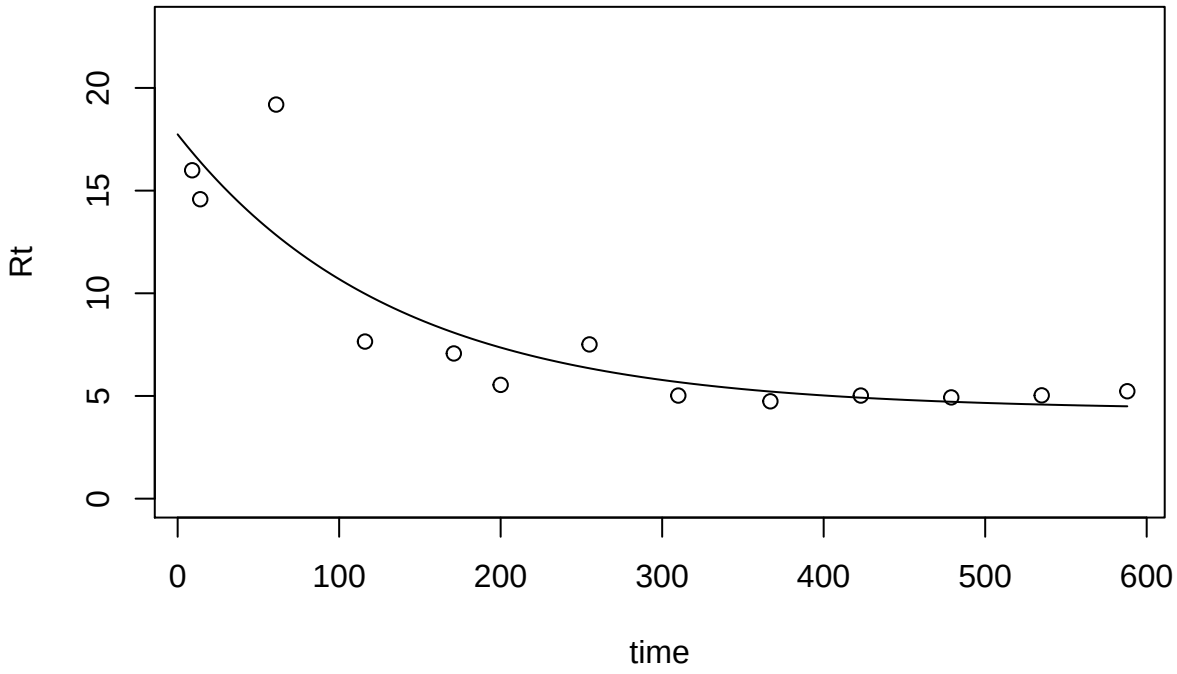
Variable C_ColoNG_35:

Decomposition rates over time at 35 degrees for Colorado, native grassland

```
## [1] "k1= 0.00752121726815715"
## [2] "k2= 3.8838672808278e-05"
## [3] "proportion of C0 in pool 1= 0.015247545785626"
```

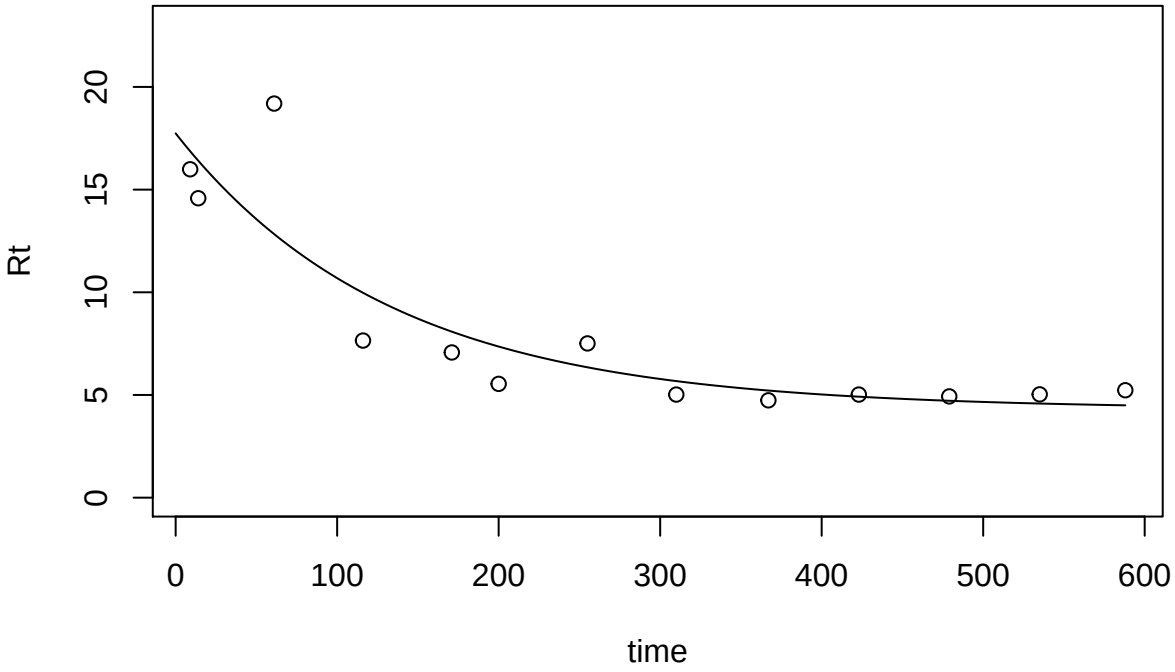



```
## [1] "AIC =  3.04197418595785"
## [1] "k1= 0.00752100348744531"
## [2] "k2= 3.88380157711491e-05"
## [3] "a21= 0.00476211018090023"
## [4] "a12= 1.08951218132924e-05"
## [5] "Proportion of C0 in pool 1= 0.0153213594774907"
```

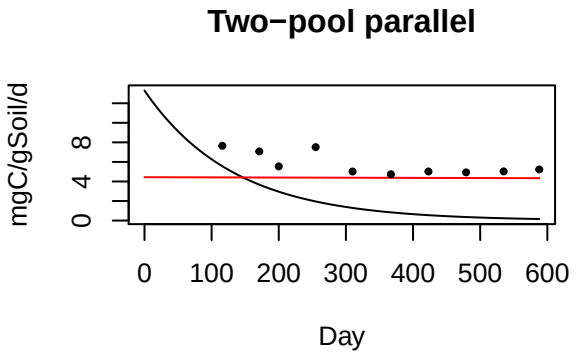


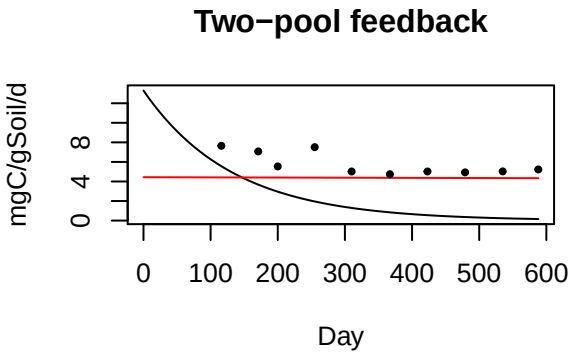

```
## [1] "AIC =  7.04197418464987"
## [1] "k1= 0.00752130243461525"
## [2] "k2= 3.88389355478022e-05"
## [3] "a21= 0.00612814120433991"
```

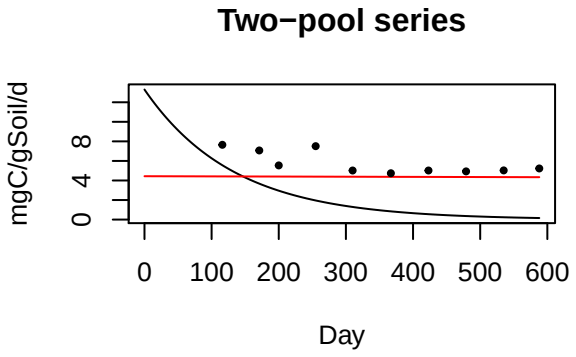
```
## [4] "Proportion of C0 in pool 1= 0.0153417146962924"
```




```
## [1] "AIC =  5.04197418420247"
```







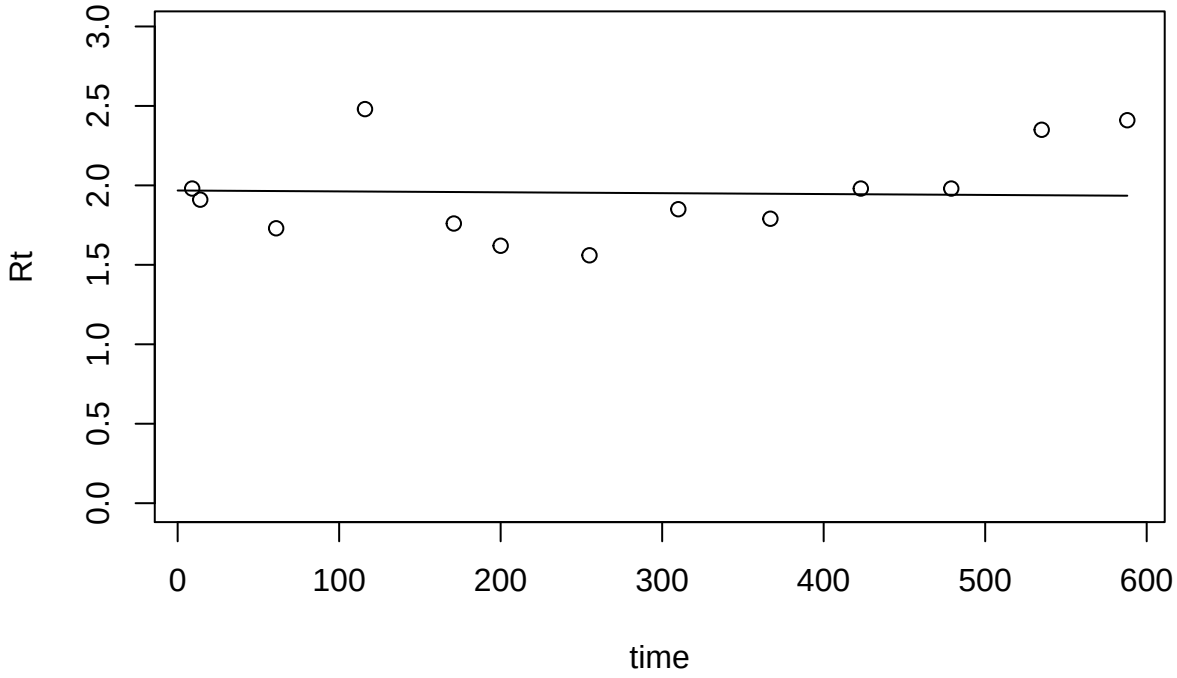
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	3.041974	0.0075212	3.88e-05	0.0152475	NA	NA
Two-pool feedback	7.041974	0.0075210	3.88e-05	0.0153214	0.0047621	1.09e-05

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	5.041974	0.0075213	3.88e-05	0.0153417	0.0061281	NA

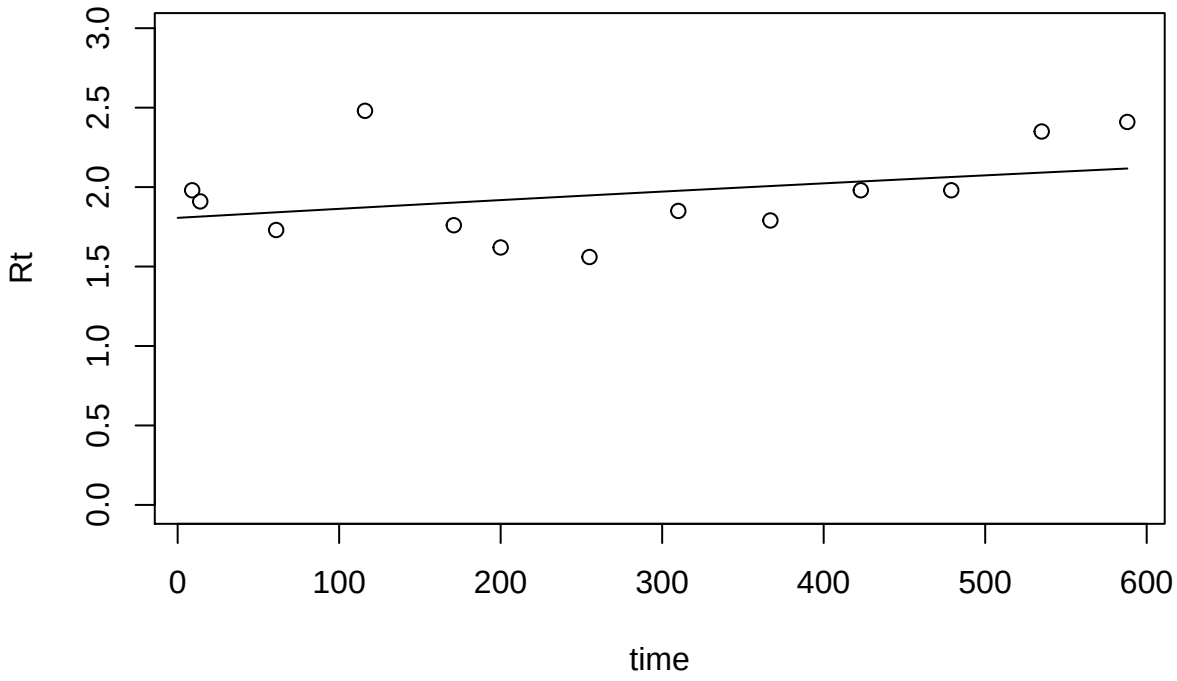
Variable C_ColoCul_15:

Decomposition rates over time at 15 degrees for Colorado, cultivated

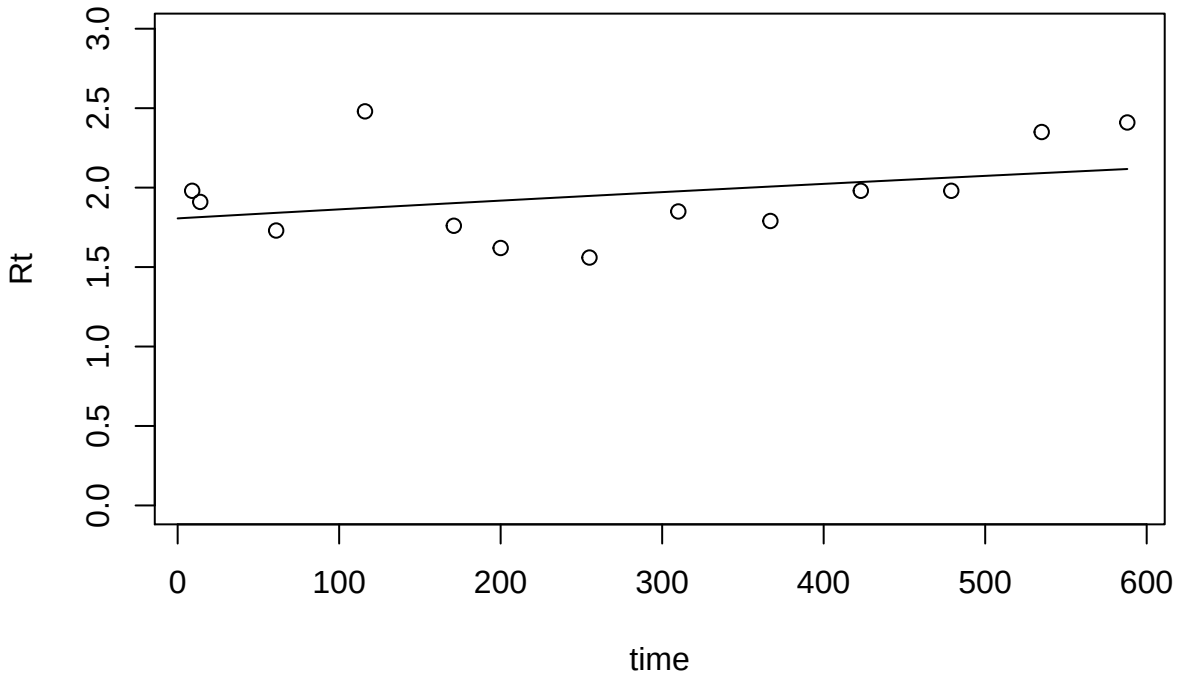
```
## [1] "k1= 2.84764389082331e-05"
## [2] "k2= 2.85180677102505e-05"
## [3] "proportion of C0 in pool 1= 0.000830588378869124"
```



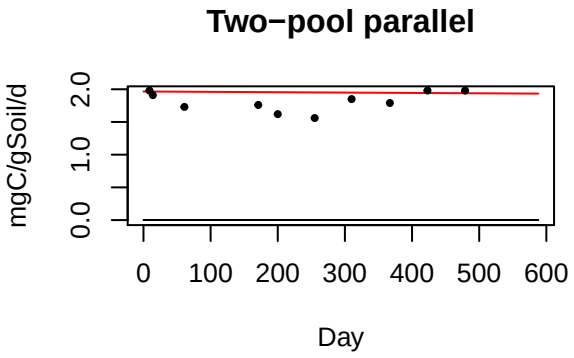

```
## [1] "AIC =  10.9987005051815"
## [1] "k1= 0.000122017622167543"
## [2] "k2= 0.000122622907054756"
## [3] "a21= 0.0181332623323598"
## [4] "a12= 0.802057473873026"
## [5] "Proportion of C0 in pool 1= 0.0199815756724186"
```

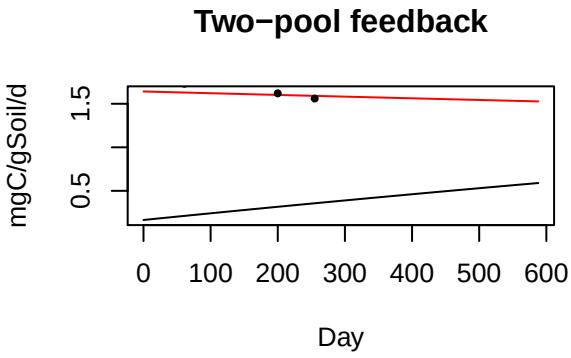


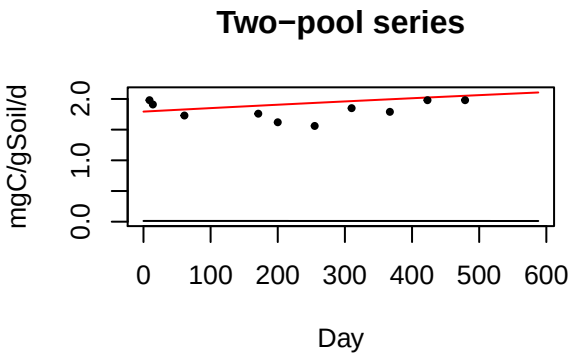

```
## [1] "AIC =  15.3295379225037"
## [1] "k1= 0.000121155134423918"
## [2] "k2= 0.00012118659824147 4"
## [3] "a21= 0.998098428616781"
## [4] "Proportion of C0 in pool 1= 0.785461948593006"
```




```
## [1] "AIC =  13.3297314993388"
```





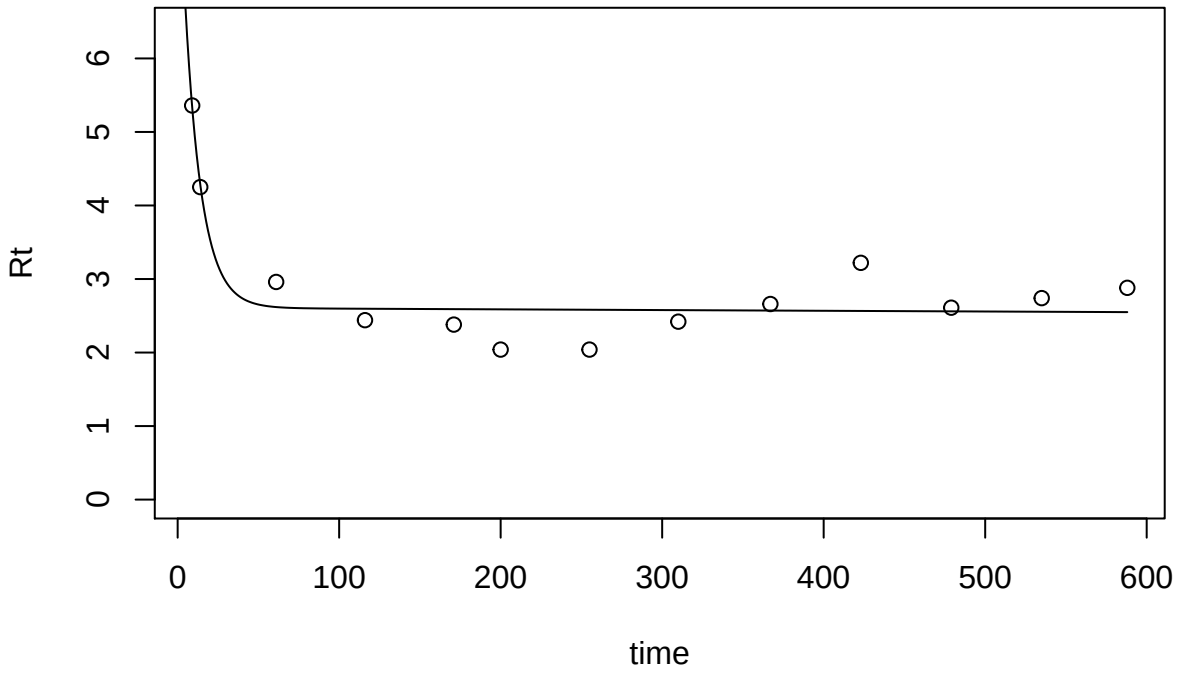


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	10.99870	0.0000285	0.0000285	0.0008306	NA	NA
Two-pool feedback	15.32954	0.0001220	0.0001226	0.0199816	0.0181333	0.8020575
Two-pool series	13.32973	0.0001212	0.0001212	0.7854619	0.9980984	NA

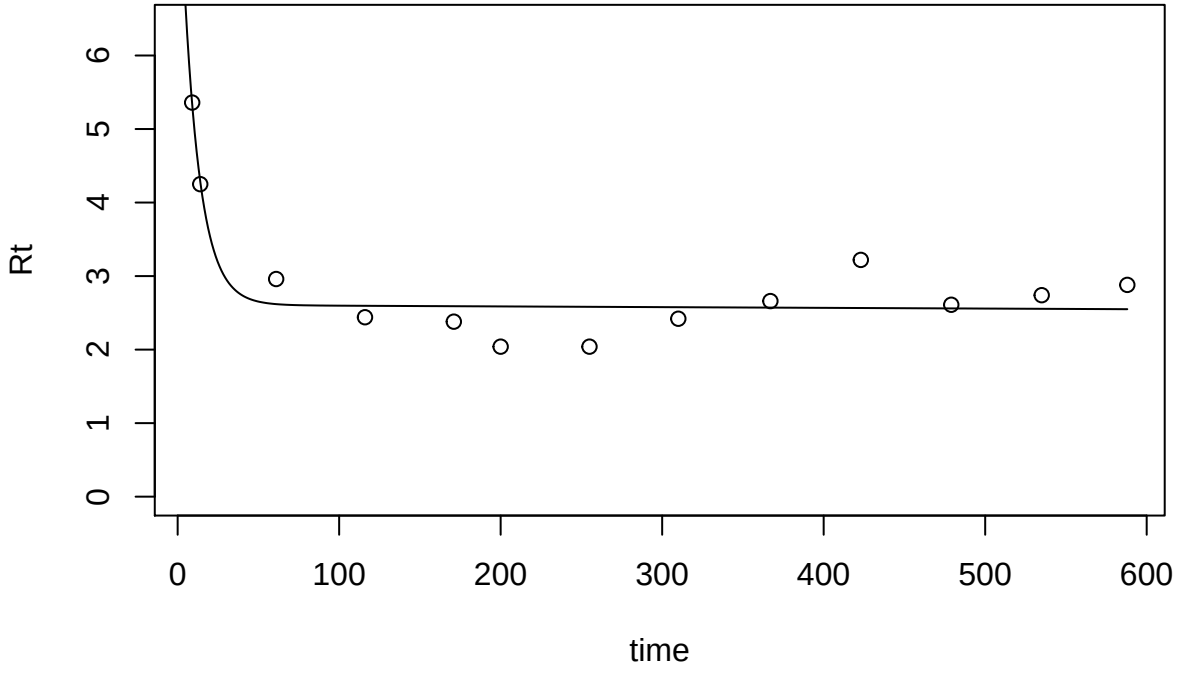
Variable C_ColoCul_25:

Decomposition rates over time at 25 degrees for Colorado, cultivated

```
## [1] "k1= 0.0970362358186908"
## [2] "k2= 3.78194223360458e-05"
## [3] "proportion of C0 in pool 1= 0.000976196905879245"
```

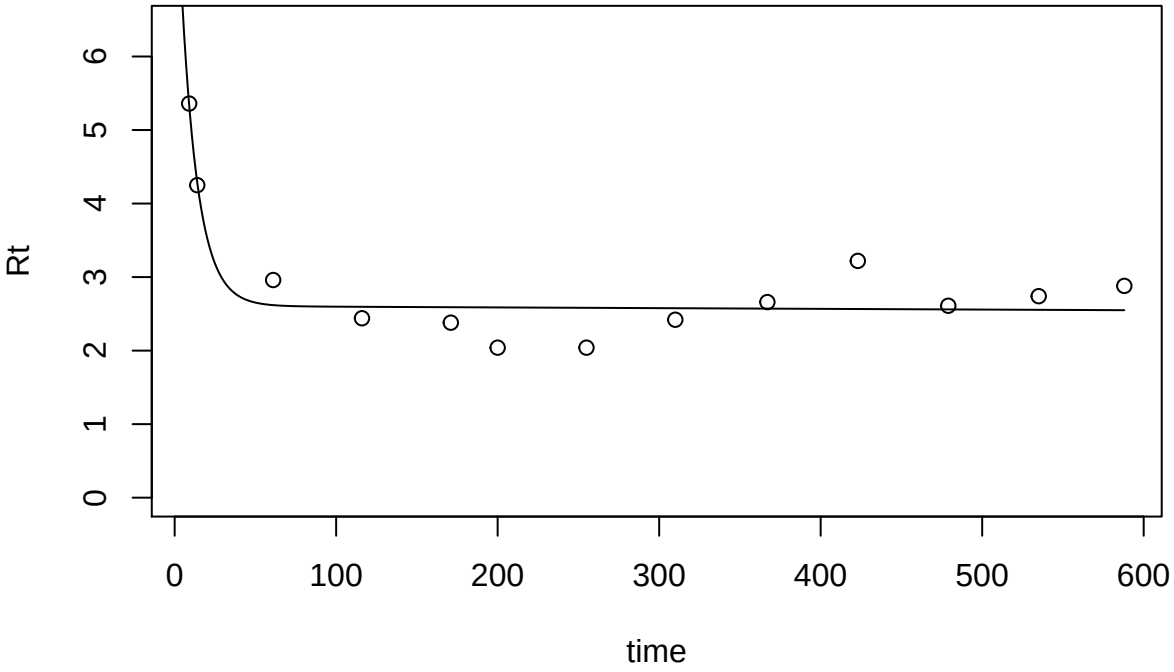



```
## [1] "AIC =  10.4761121708555"
## [1] "k1= 0.0970413628737719"
## [2] "k2= 3.78198924110133e-05"
## [3] "a21= 0.863836163227604"
## [4] "a12= 1.36890320160954e-05"
## [5] "Proportion of C0 in pool 1= 0.00718706712338701"
```

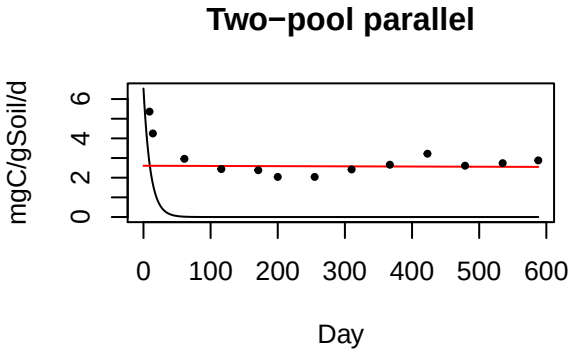


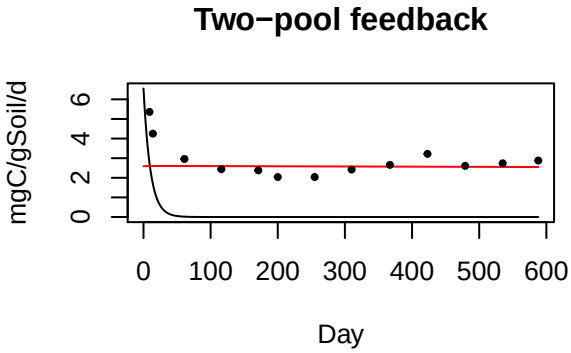

```
## [1] "AIC =  14.4761121726366"
## [1] "k1= 0.0970377595105107"
## [2] "k2= 3.7819429192429e-05"
## [3] "a21= 0.89313918505383"
```

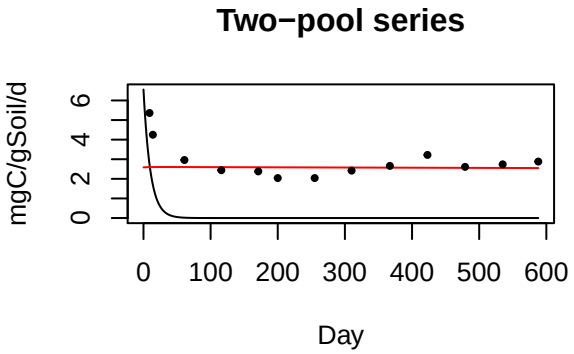
```
## [4] "Proportion of C0 in pool 1= 0.00916509831770035"
```




```
## [1] "AIC =  12.476112171646"
```







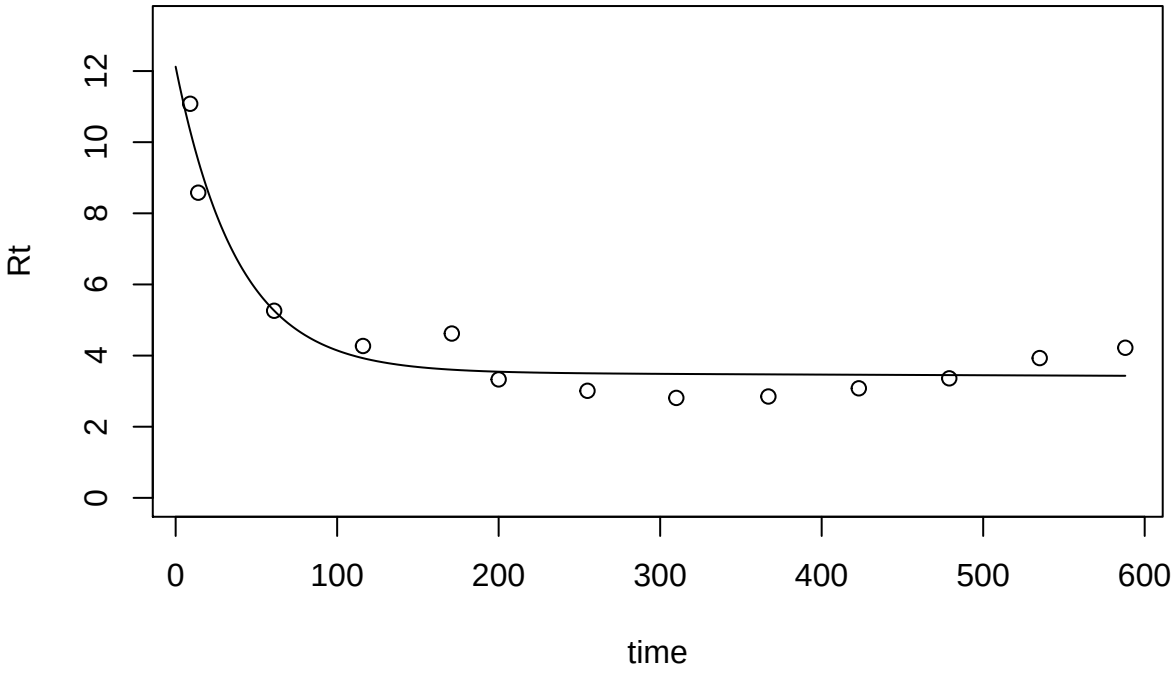
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	10.47611	0.0970362	3.78e-05	0.0009762	NA	NA
Two-pool feedback	14.47611	0.0970414	3.78e-05	0.0071871	0.8638362	1.37e-05

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	12.47611	0.0970378	3.78e-05	0.0091651	0.8931392	NA

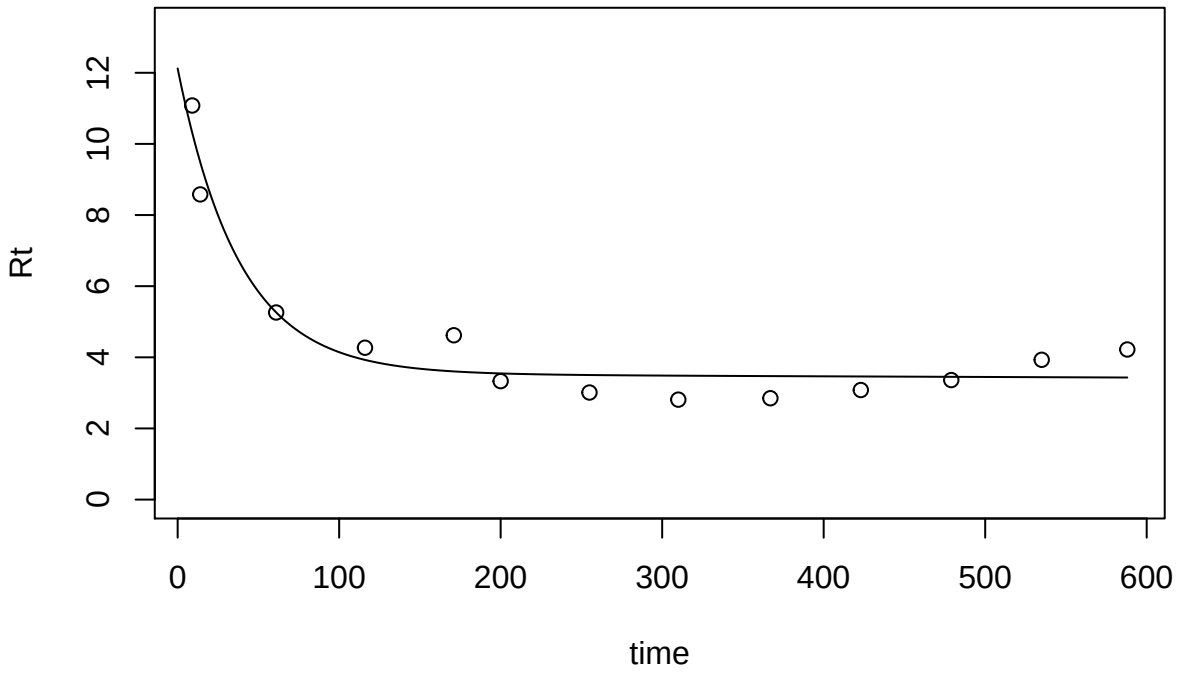
Variable C_ColoCul_35:

Decomposition rates over time at 35 degrees for Colorado, cultivated

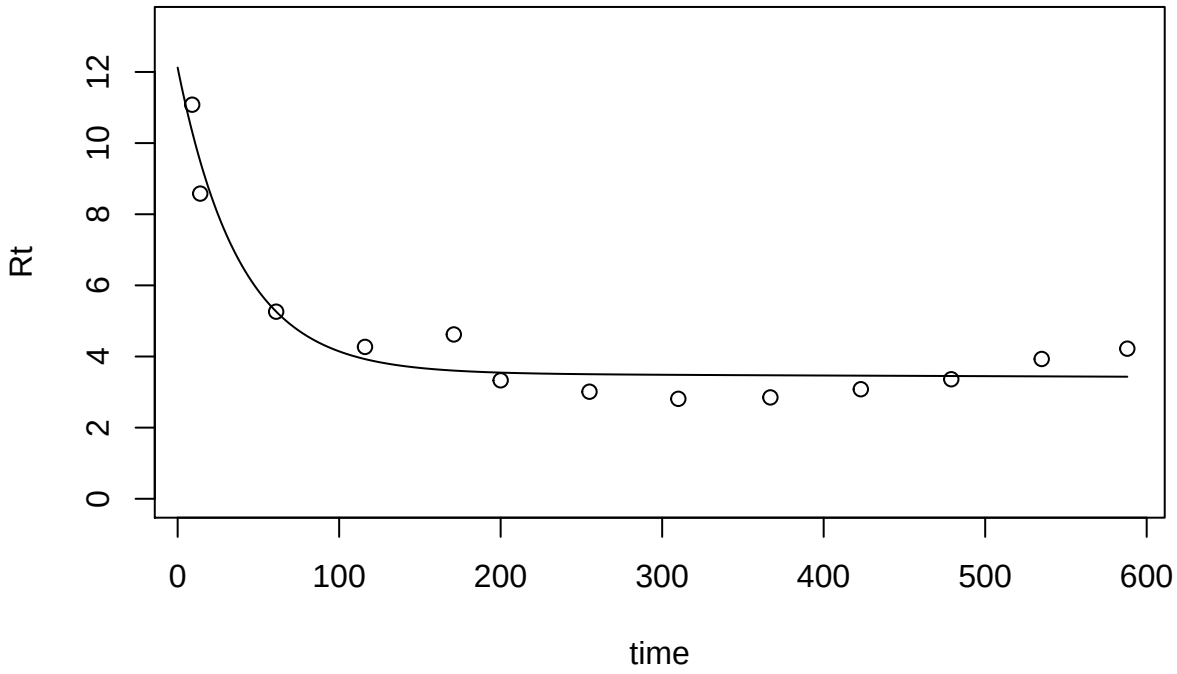
```
## [1] "k1= 0.0261954426268828"
## [2] "k2= 5.15120283561379e-05"
## [3] "proportion of C0 in pool 1= 0.0047496966751121"
```



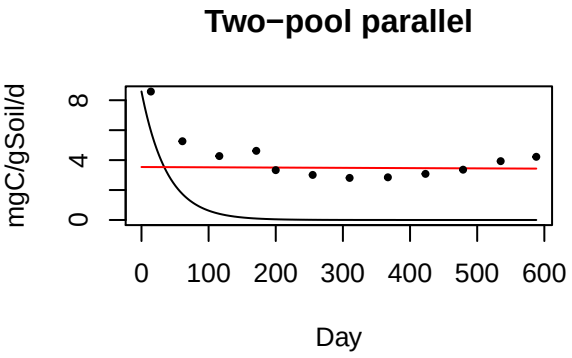

```
## [1] "AIC =  8.03832852566841"
## [1] "k1= 0.0261949013885816"
## [2] "k2= 5.15126041507223e-05"
## [3] "a21= 0.41900600084409"
## [4] "a12= 3.13057158684016e-05"
## [5] "Proportion of C0 in pool 1= 0.00818691351903672"
```

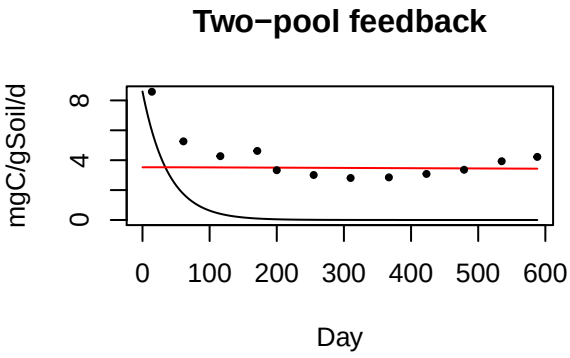


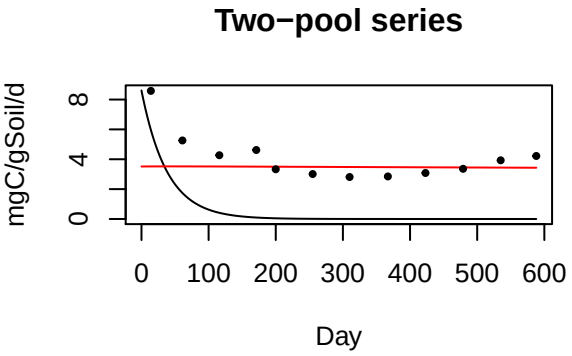

```
## [1] "AIC =  12.0383285228841"
## [1] "k1= 0.0261959854986359"
## [2] "k2= 5.15121278740329e-05"
## [3] "a21= 0.555918638432089"
## [4] "Proportion of C0 in pool 1= 0.0107218695249229"
```




```
## [1] "AIC =  10.0383285266318"
```





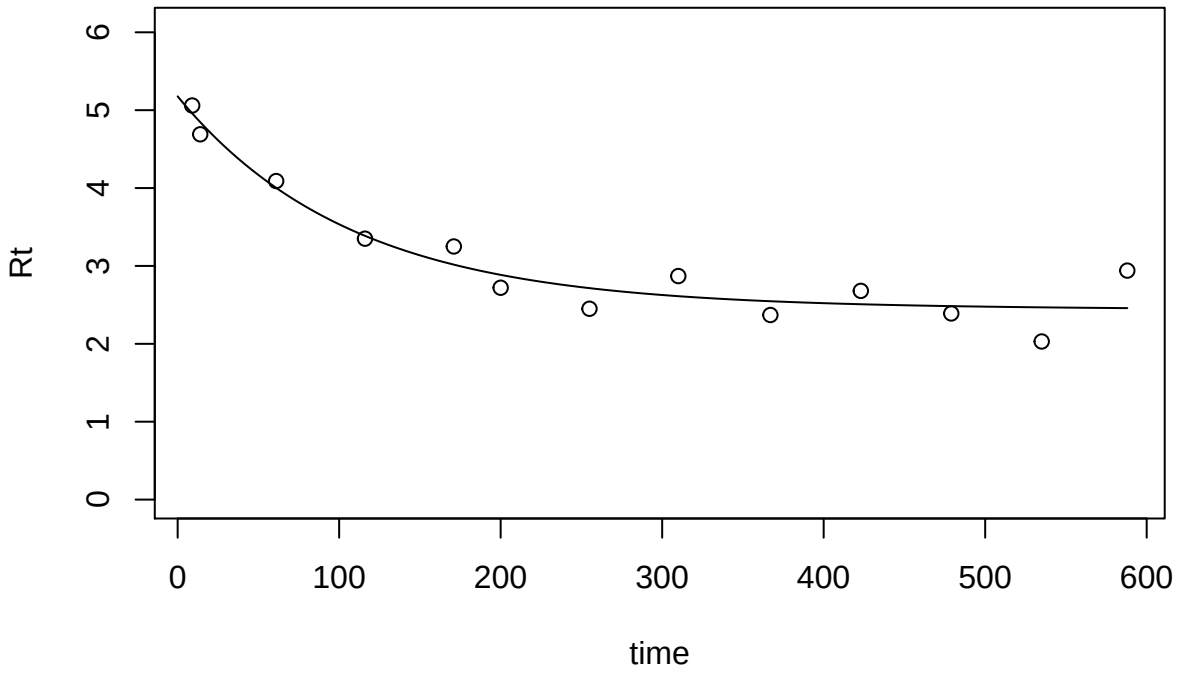


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	8.038329	0.0261954	5.15e-05	0.0047497	NA	NA
Two-pool feedback	12.038329	0.0261949	5.15e-05	0.0081869	0.4190060	3.13e-05
Two-pool series	10.038329	0.0261960	5.15e-05	0.0107219	0.5559186	NA

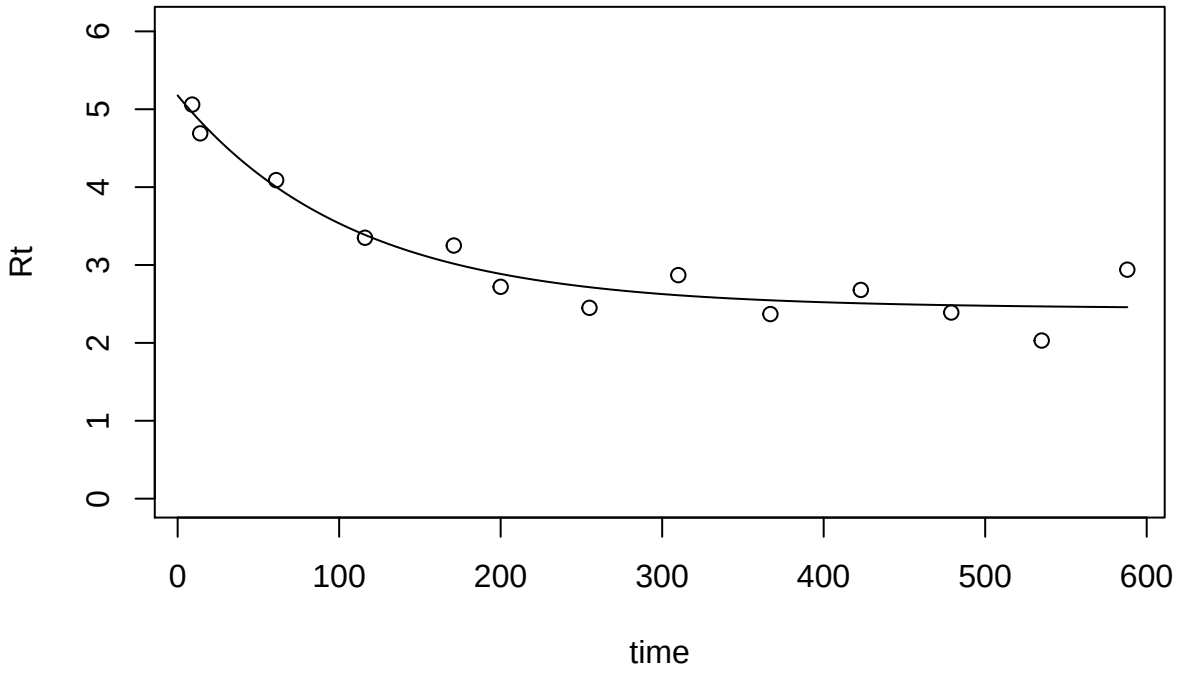
Variable C_TexNG_15:

Decomposition rates over time at 15 degrees for Texas, native grassland

```
## [1] "k1= 0.00933251578828728"
## [2] "k2= 2.21932791791237e-05"
## [3] "proportion of C0 in pool 1= 0.00258096669501301"
```

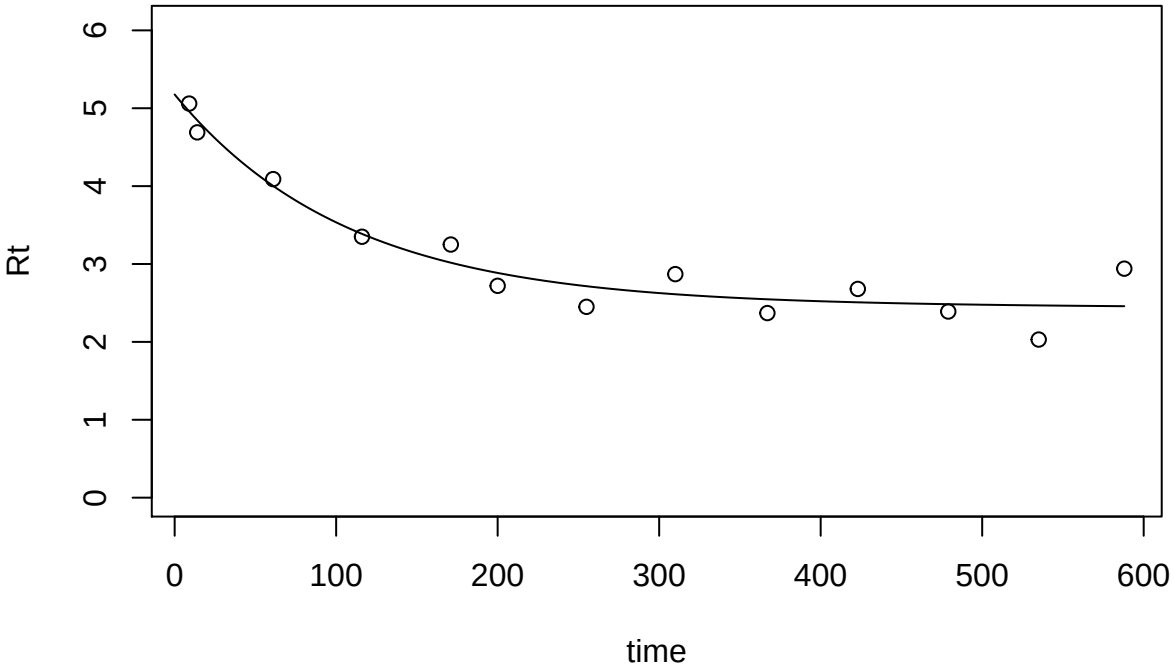



```
## [1] "AIC =  11.6894446279065"
## [1] "k1= 0.00933062538888441"
## [2] "k2= 2.40722584917378e-05"
## [3] "a21= 0.602232936187108"
## [4] "a12= 0.12930351500994"
## [5] "Proportion of C0 in pool 1= 0.00684556476036419"
```

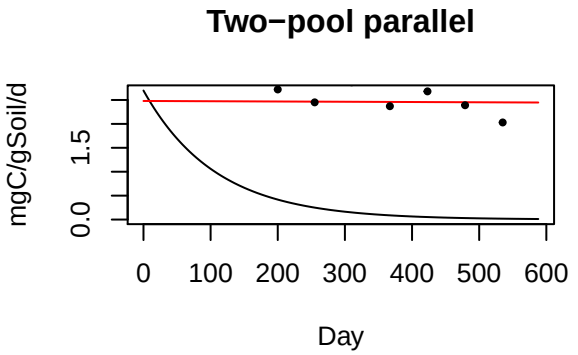


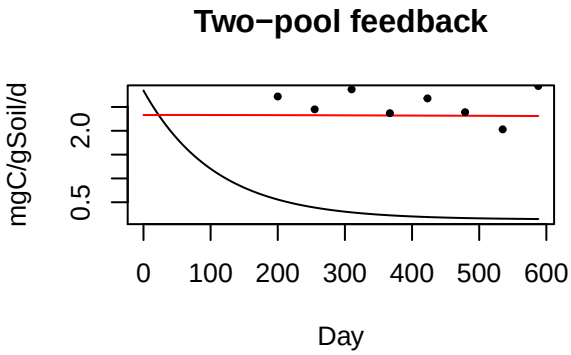

```
## [1] "AIC =  15.6894446278238"
## [1] "k1= 0.00933243004679492"
## [2] "k2= 2.21932451756509e-05"
## [3] "a21= 0.654600140518512"
```

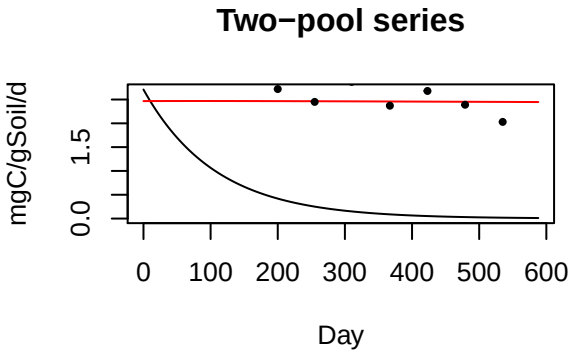
```
## [4] "Proportion of C0 in pool 1= 0.00750639674053316"
```




```
## [1] "AIC =  13.6894446274445"
```







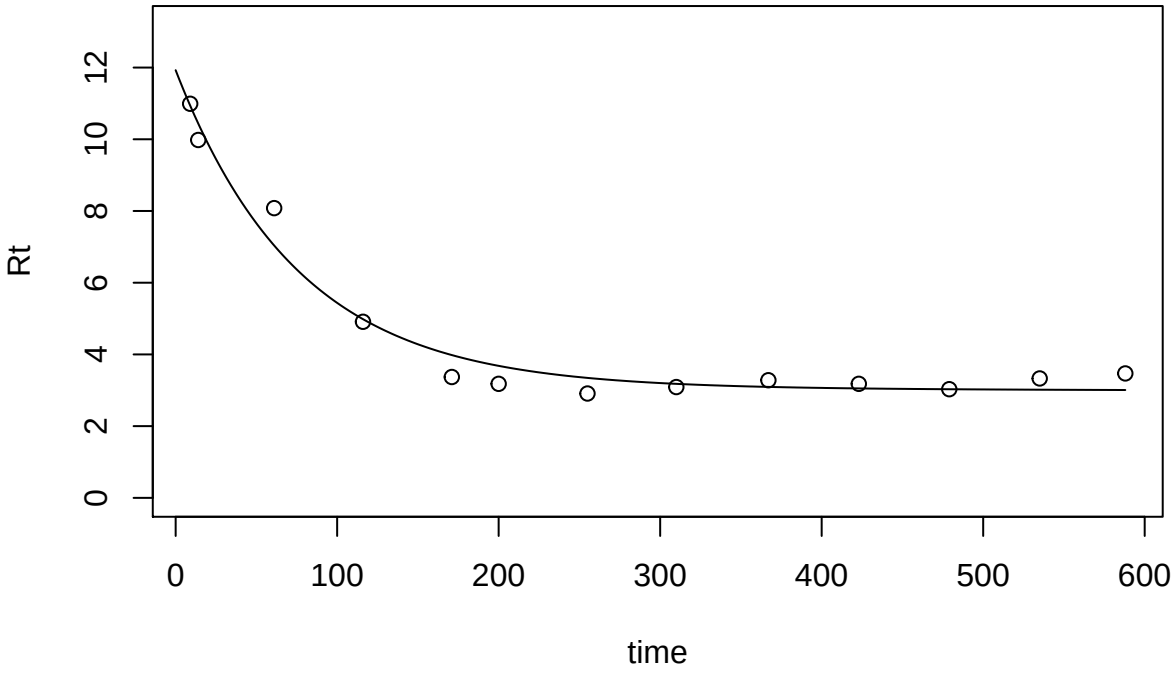
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	11.68944	0.0093325	2.22e-05	0.0025810	NA	NA
Two-pool feedback	15.68944	0.0093306	2.41e-05	0.0068456	0.6022329	0.1293035

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	13.68944	0.0093324	2.22e-05	0.0075064	0.6546001	NA

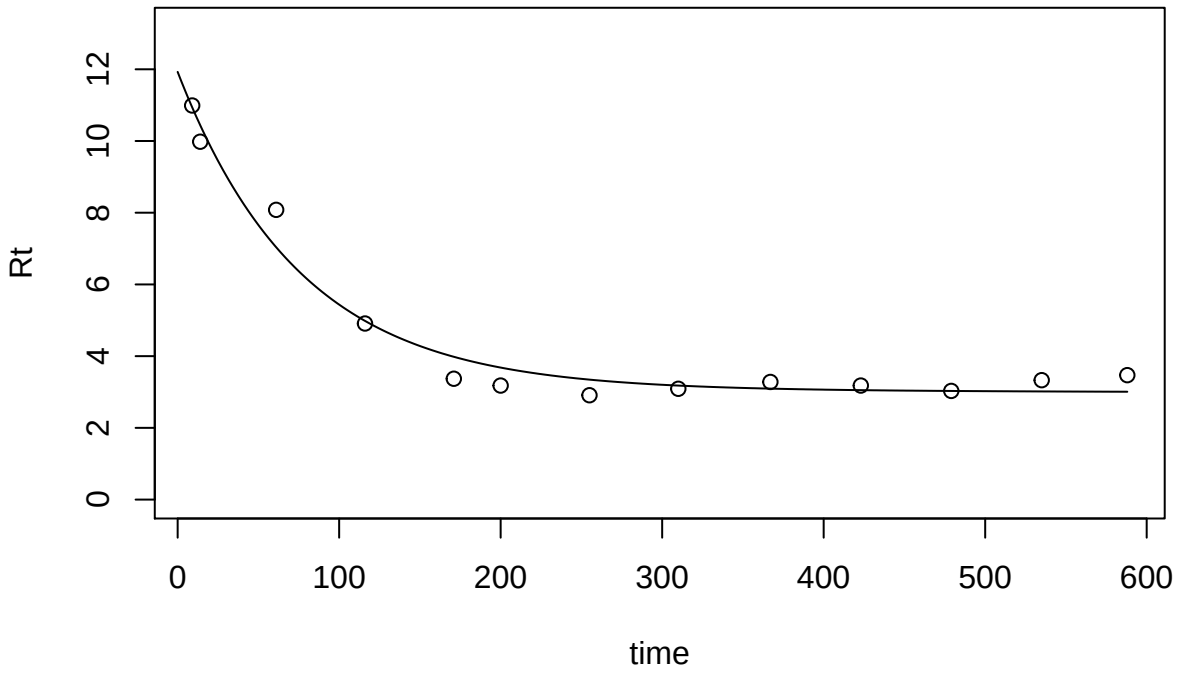
Variable C_TexNG_25:

Decomposition rates over time at 25 degrees for Texas, native grassland

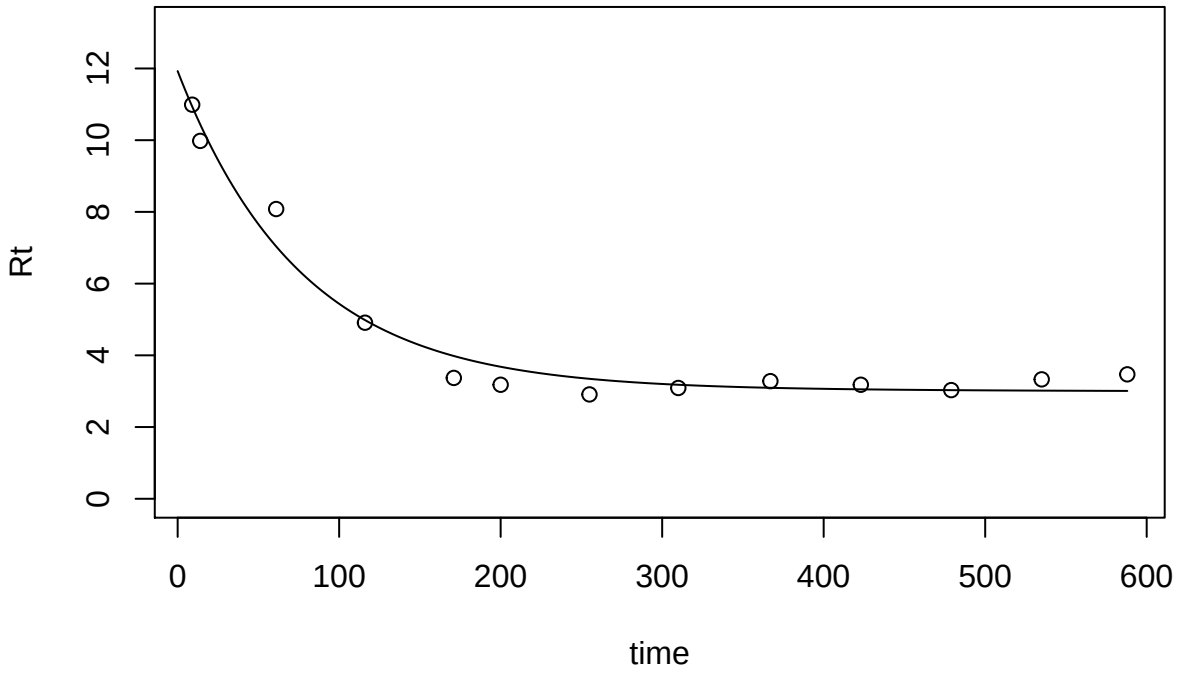
```
## [1] "k1= 0.0131044569167441"
## [2] "k2= 2.74192828342528e-05"
## [3] "proportion of C0 in pool 1= 0.00604672717516619"
```



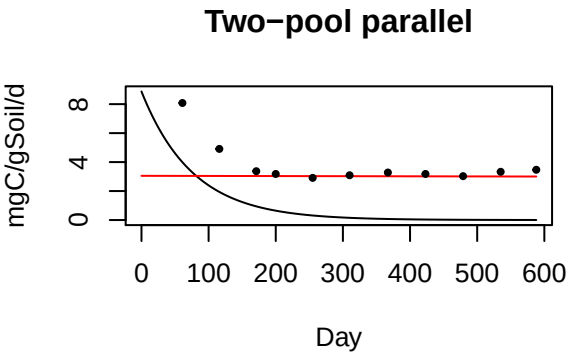

```
## [1] "AIC =  9.30413695276132"
## [1] "k1= 0.0131041352780361"
## [2] "k2= 2.74197379616134e-05"
## [3] "a21= 0.251435629848735"
## [4] "a12= 9.43915334285506e-05"
## [5] "Proportion of C0 in pool 1= 0.00808378272043453"
```

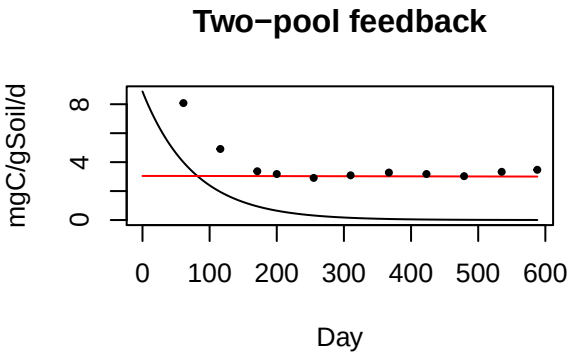


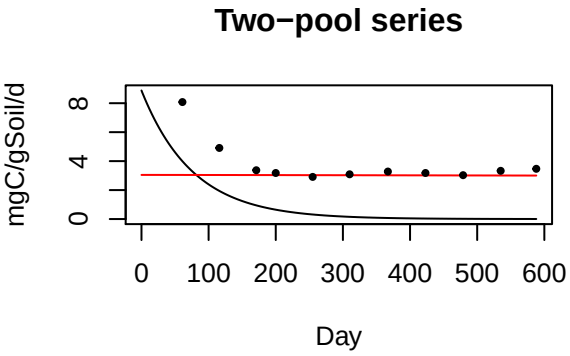

```
## [1] "AIC =  13.3041369445433"
## [1] "k1= 0.0131043801123168"
## [2] "k2= 2.74192359030894e-05"
## [3] "a21= 0.187548942200769"
## [4] "Proportion of C0 in pool 1= 0.00744621420421115"
```




```
## [1] "AIC =  11.304136952998"
```





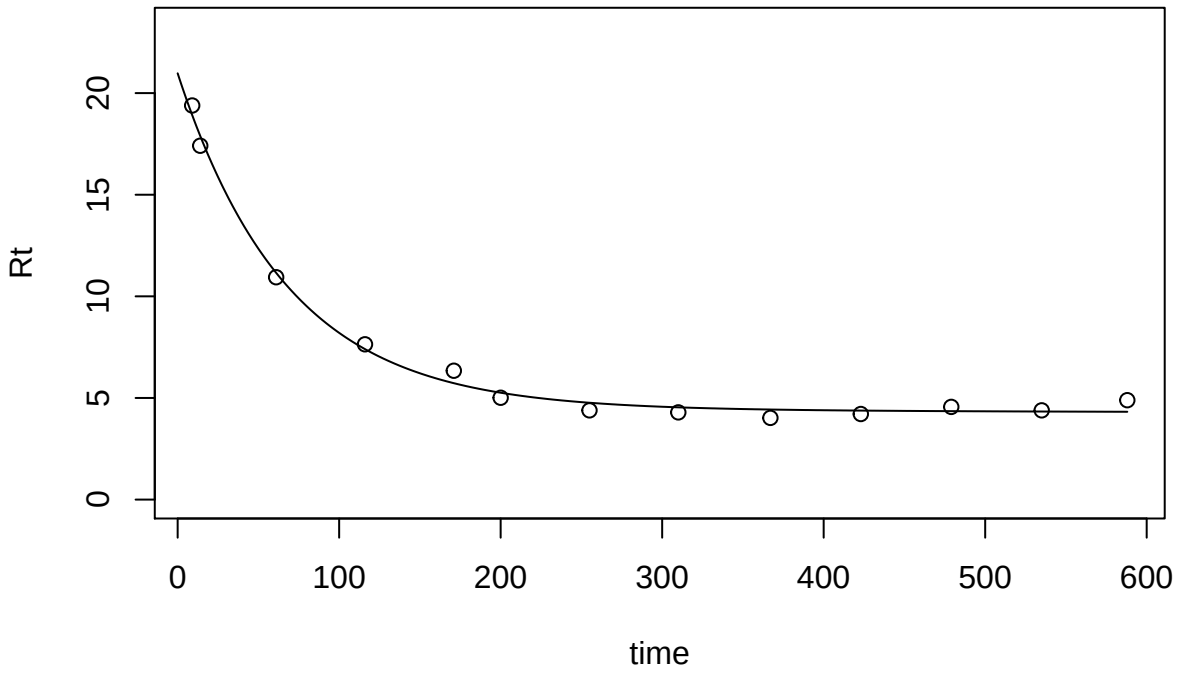


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	9.304137	0.0131045	2.74e-05	0.0060467	NA	NA
Two-pool feedback	13.304137	0.0131041	2.74e-05	0.0080838	0.2514356	9.44e-05
Two-pool series	11.304137	0.0131044	2.74e-05	0.0074462	0.1875489	NA

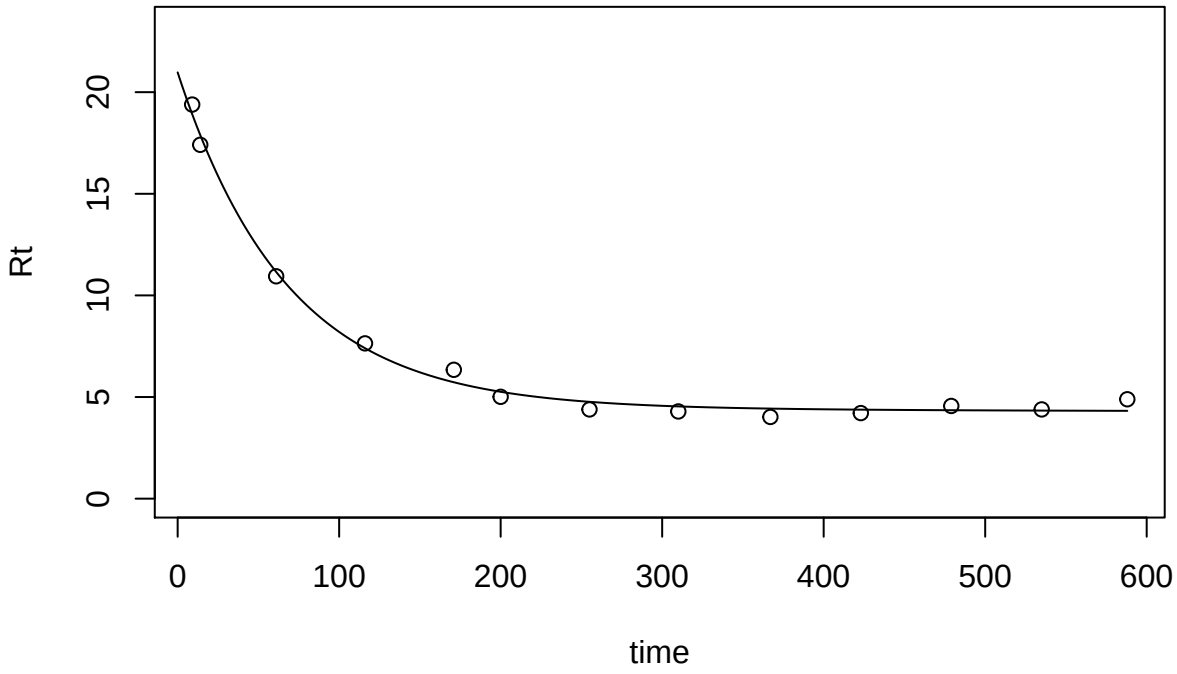
Variable C_TexNG_35:

Decomposition rates over time at 35 degrees for Texas, native grassland

```
## [1] "k1= 0.0147138405712937"
## [2] "k2= 3.98646177423286e-05"
## [3] "proportion of C0 in pool 1= 0.0100449451033268"
```

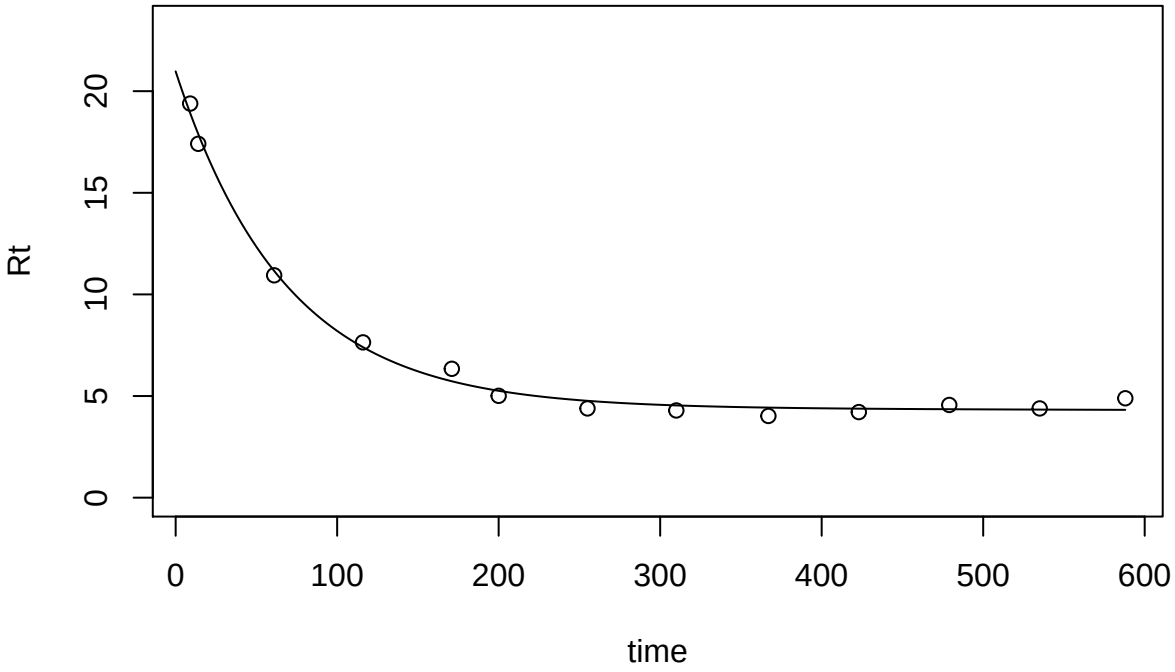



```
## [1] "AIC =  9.99775166483816"
## [1] "k1= 0.0147138414694331"
## [2] "k2= 3.98648284186811e-05"
## [3] "a21= 0.0566264433709745"
## [4] "a12= 9.25096695579275e-05"
## [5] "Proportion of C0 in pool 1= 0.0106498698247788"
```

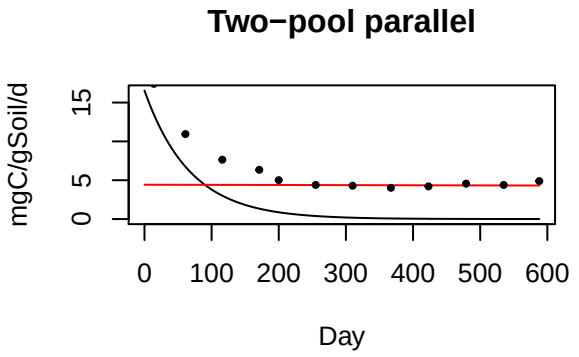


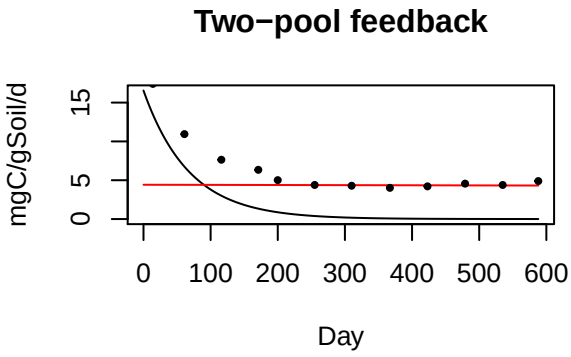

```
## [1] "AIC =  13.9977516641328"
## [1] "k1= 0.014713840776328"
## [2] "k2= 3.98646179529466e-05"
## [3] "a21= 0.0274096983631069"
```

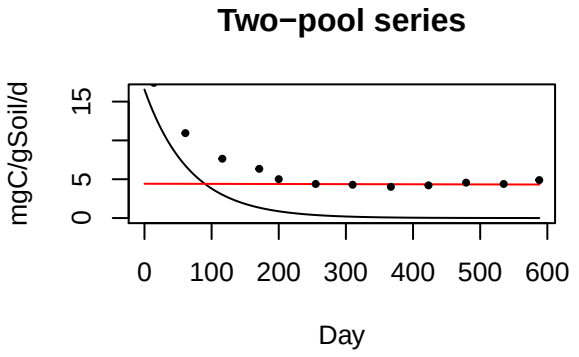
```
## [4] "Proportion of C0 in pool 1= 0.0103288221235118"
```




```
## [1] "AIC =  11.9977516648204"
```







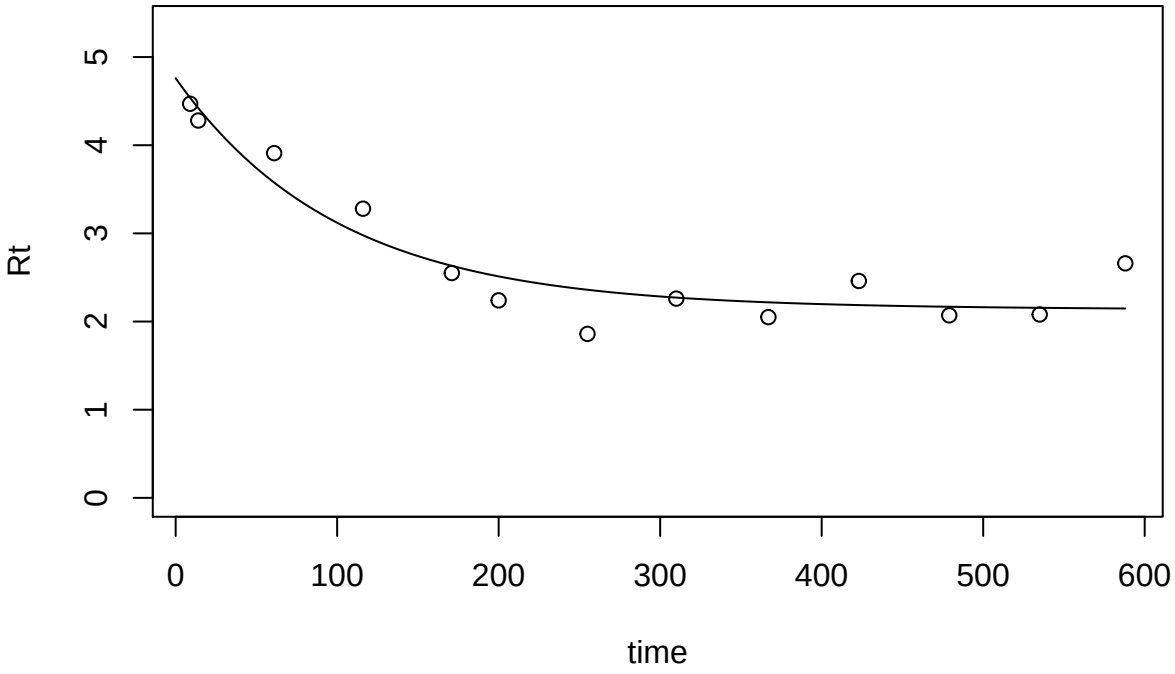
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	9.997752	0.0147138	3.99e-05	0.0100449	NA	NA
Two-pool feedback	13.997752	0.0147138	3.99e-05	0.0106499	0.0566264	9.25e-05

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	11.997752	0.0147138	3.99e-05	0.0103288	0.0274097	NA

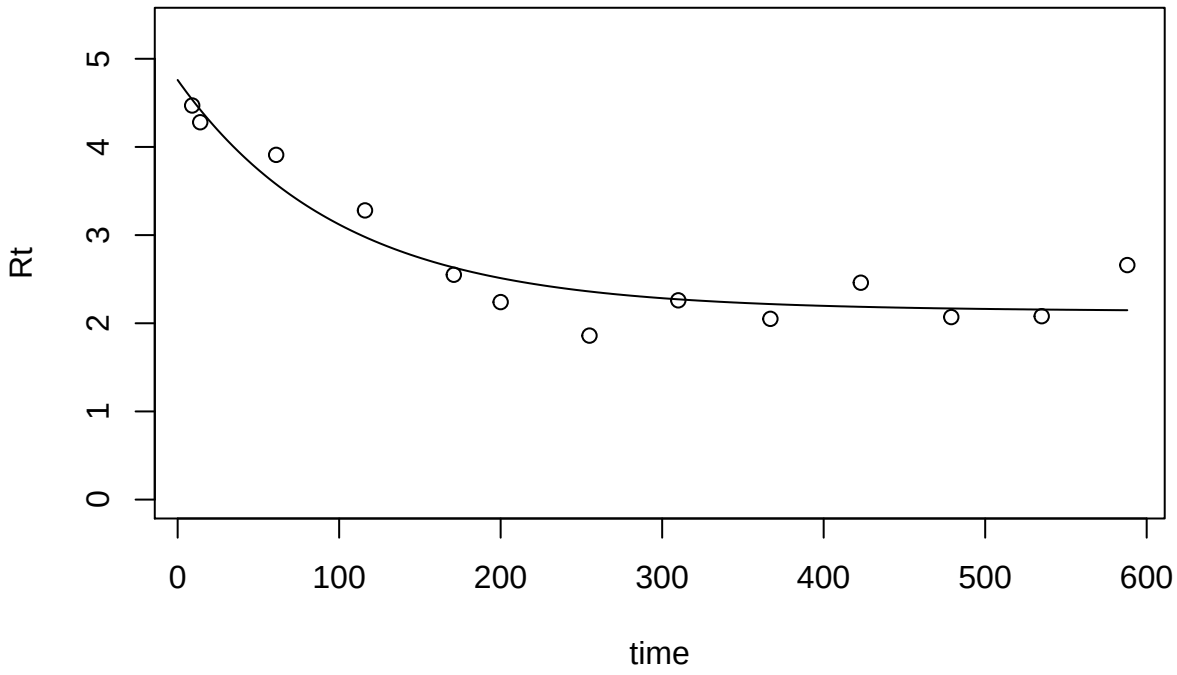
Variable C_TexCul_15:

Decomposition rates over time at 15 degrees for Texas, cultivated

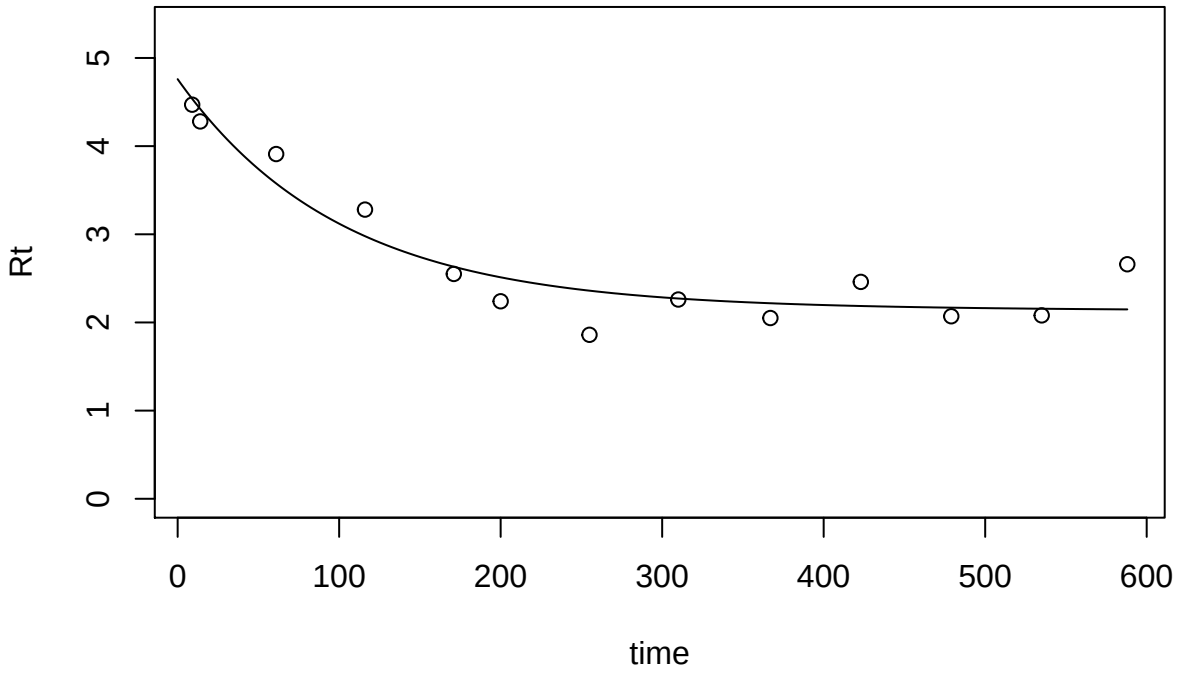
```
## [1] "k1= 0.00995886254400794"
## [2] "k2= 2.13048360113745e-05"
## [3] "proportion of C0 in pool 1= 0.00255171059466258"
```



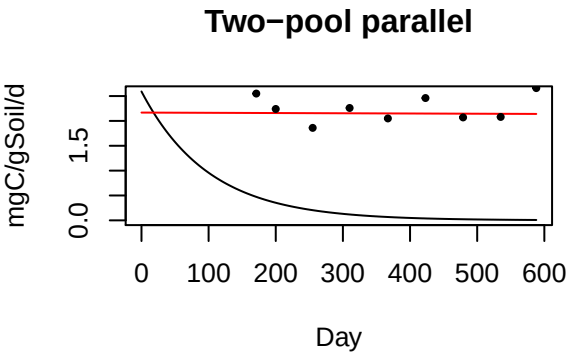

```
## [1] "AIC =  11.2580733703542"
## [1] "k1= 0.00994991367181715"
## [2] "k2= 3.07530380840864e-05"
## [3] "a21= 0.320209509125319"
## [4] "a12= 0.957393607300402"
## [5] "Proportion of C0 in pool 1= 0.00670643201070326"
```

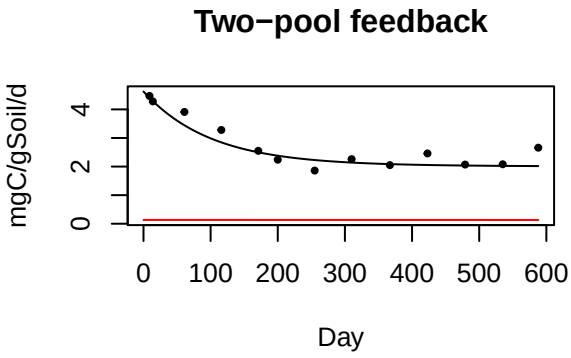


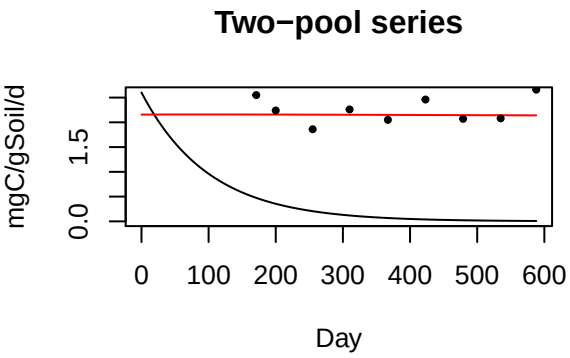

```
## [1] "AIC =  15.2580733677461"
## [1] "k1= 0.00995885056711626"
## [2] "k2= 2.13048314626445e-05"
## [3] "a21= 0.656852635168652"
## [4] "Proportion of C0 in pool 1= 0.00746688302407433"
```




```
## [1] "AIC =  13.2580733694266"
```





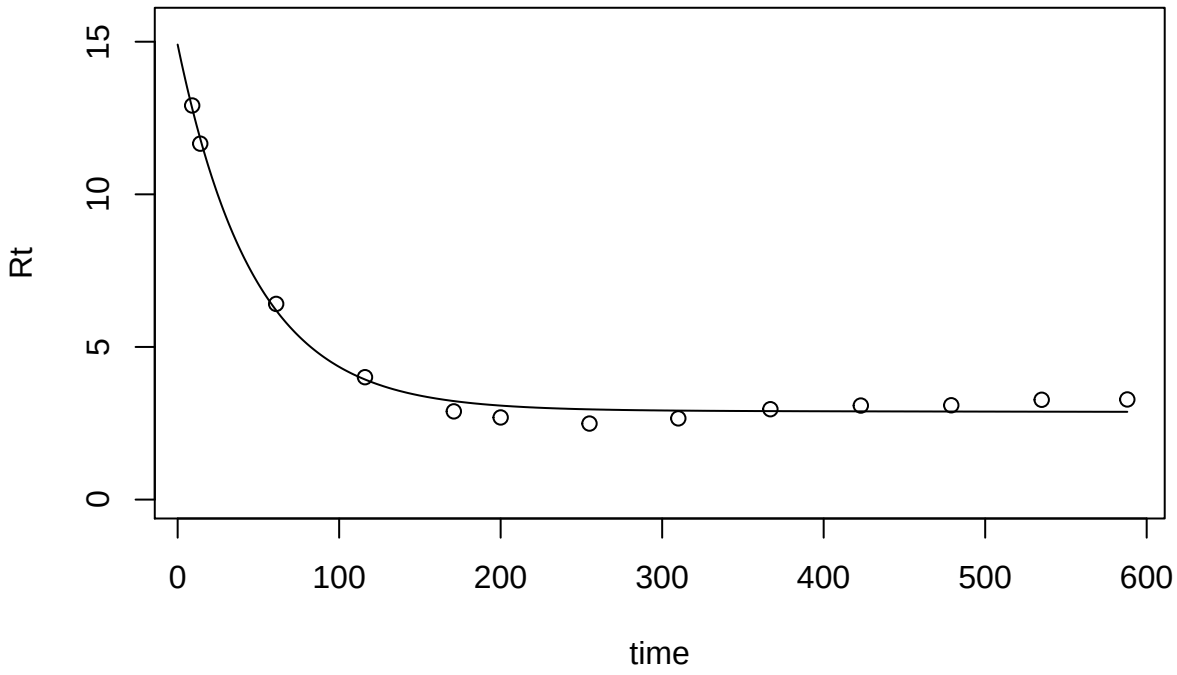


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	11.25807	0.0099589	2.13e-05	0.0025517	NA	NA
Two-pool feedback	15.25807	0.0099499	3.08e-05	0.0067064	0.3202095	0.9573936
Two-pool series	13.25807	0.0099589	2.13e-05	0.0074669	0.6568526	NA

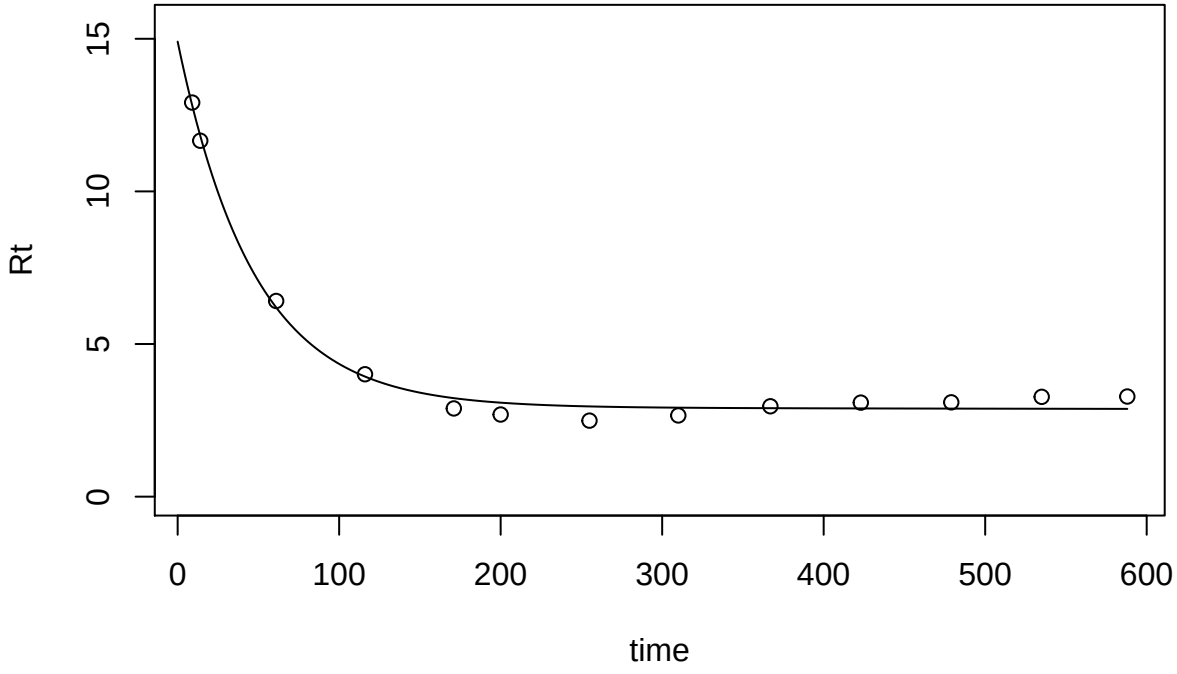
Variable C_TexCul_25:

Decomposition rates over time at 25 degrees for Texas, cultivated

```
## [1] "k1= 0.021241657338311"
## [2] "k2= 2.8828472975942e-05"
## [3] "proportion of C0 in pool 1= 0.00553008530682647"
```

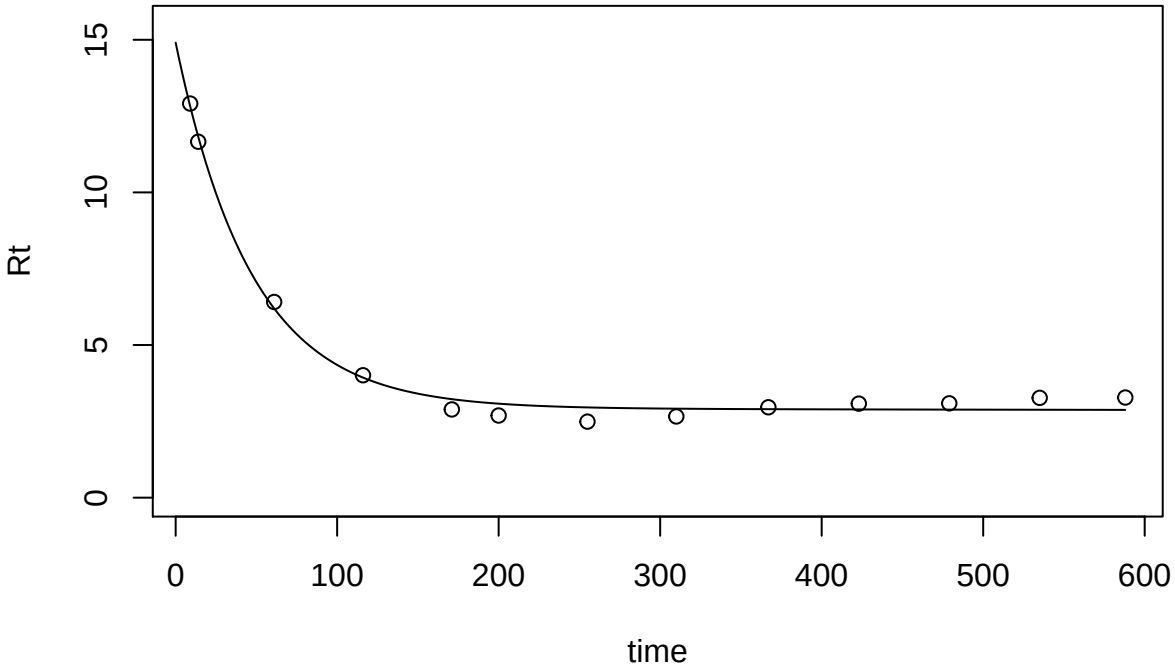



```
## [1] "AIC =  11.0711741430788"
## [1] "k1= 0.0212416544431776"
## [2] "k2= 2.88290611667839e-05"
## [3] "a21= 0.364504882771878"
## [4] "a12= 5.59563055693157e-05"
## [5] "Proportion of C0 in pool 1= 0.00870886982523306"
```

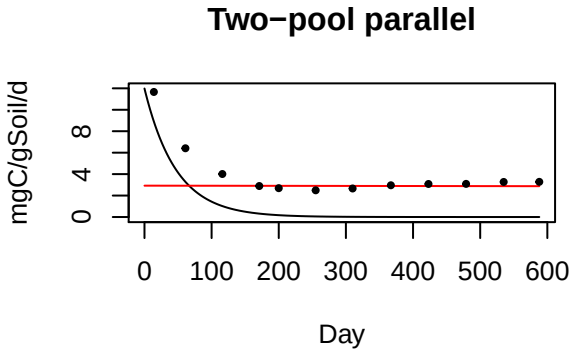


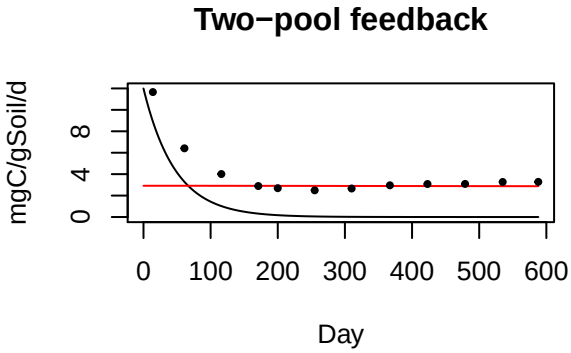

```
## [1] "AIC =  15.071174142907"
## [1] "k1= 0.0212417094116795"
## [2] "k2= 2.88284882320027e-05"
## [3] "a21= 0.521284064038052"
```

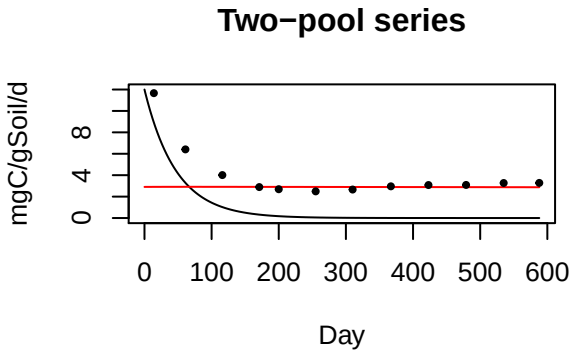
```
## [4] "Proportion of C0 in pool 1= 0.0115690163770842"
```




```
## [1] "AIC =  13.0711741432147"
```







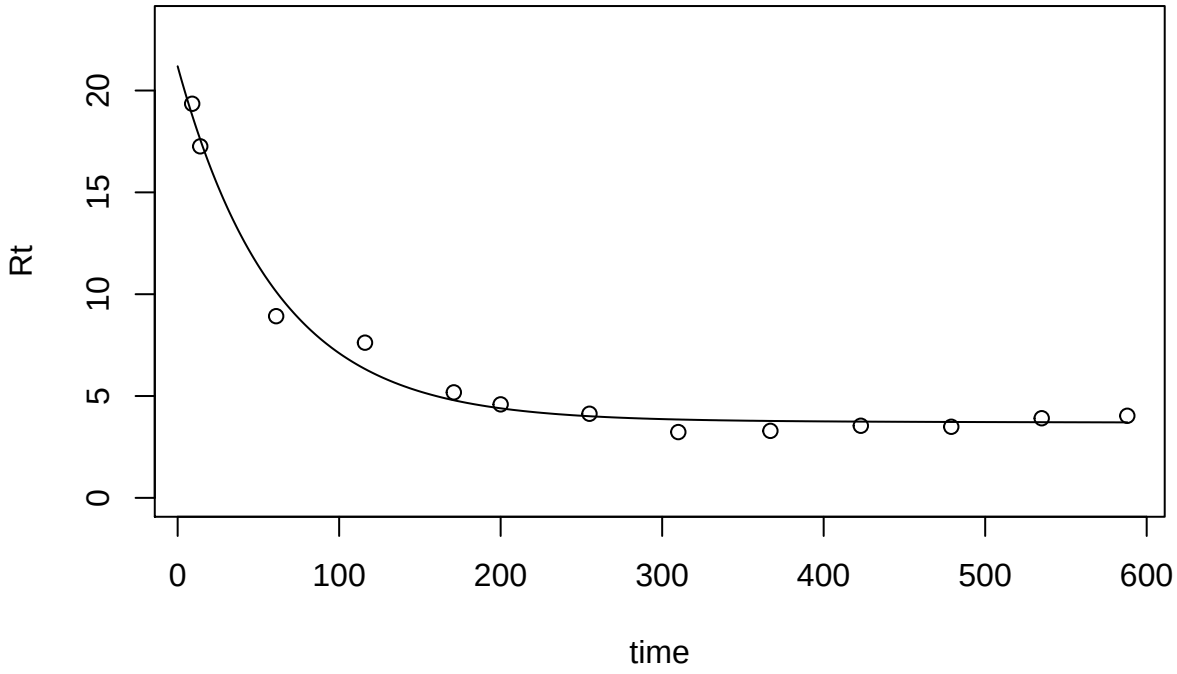
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	11.07117	0.0212417	2.88e-05	0.0055301	NA	NA
Two-pool feedback	15.07117	0.0212417	2.88e-05	0.0087089	0.3645049	5.6e-05

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	13.07117	0.0212417	2.88e-05	0.0115690	0.5212841	NA

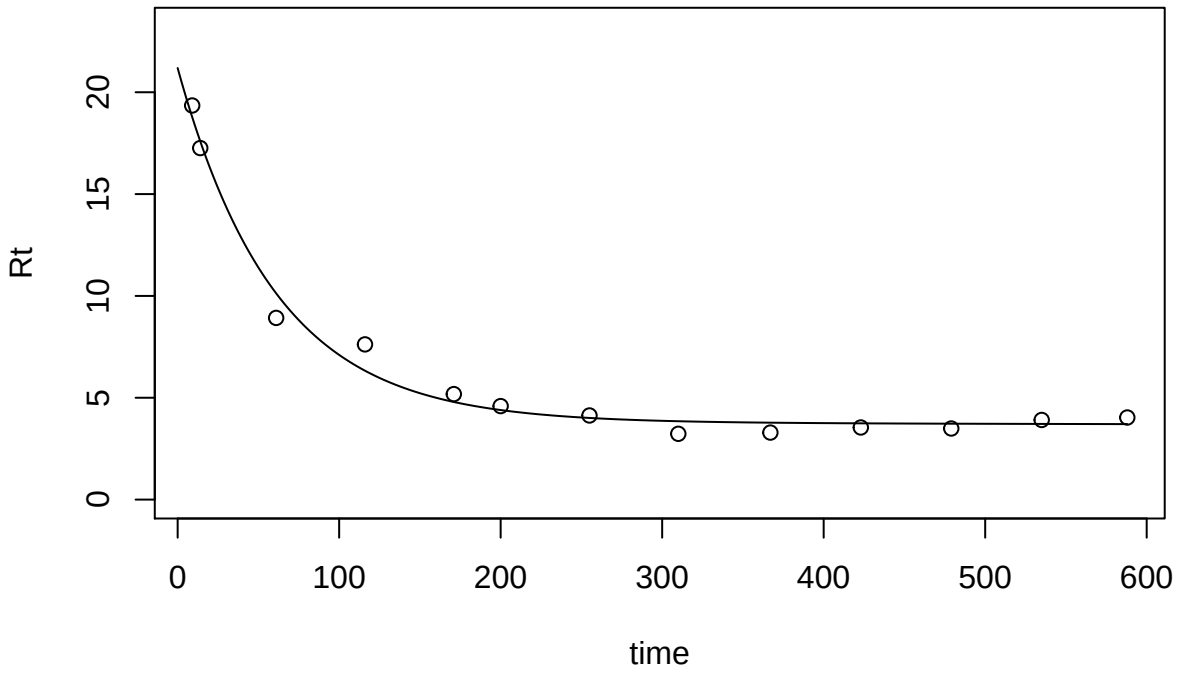
Variable C_TexCul_35:

Decomposition rates over time at 35 degrees for Texas, cultivated

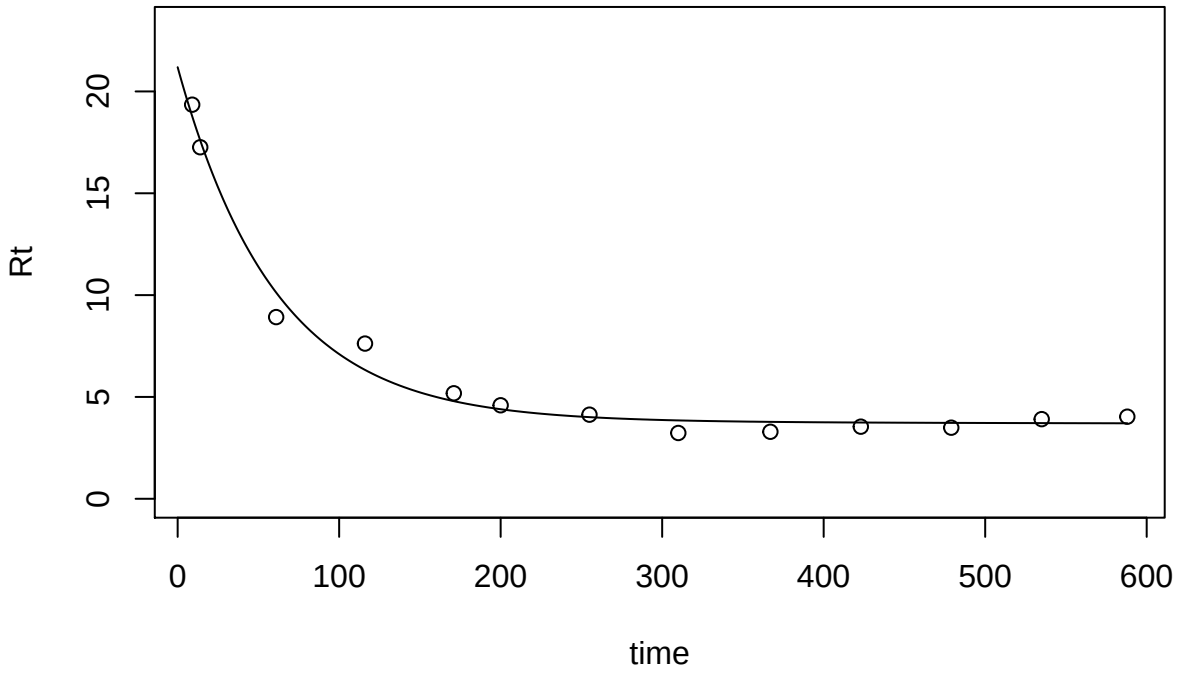
```
## [1] "k1= 0.0165336590566504"
## [2] "k2= 3.75202741935555e-05"
## [3] "proportion of C0 in pool 1= 0.0103195277684406"
```



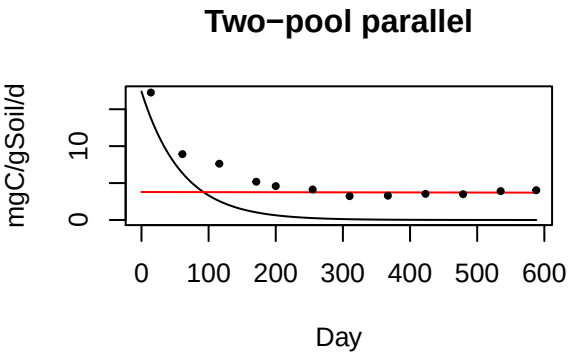

```
## [1] "AIC =  8.0706066794427"
## [1] "k1= 0.0165336725580062"
## [2] "k2= 3.75203192144103e-05"
## [3] "a21= 0.0639529865181354"
## [4] "a12= 1.44525087725778e-05"
## [5] "Proportion of C0 in pool 1= 0.0110263146956324"
```

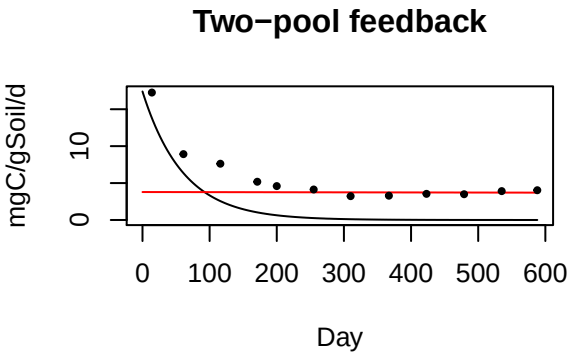


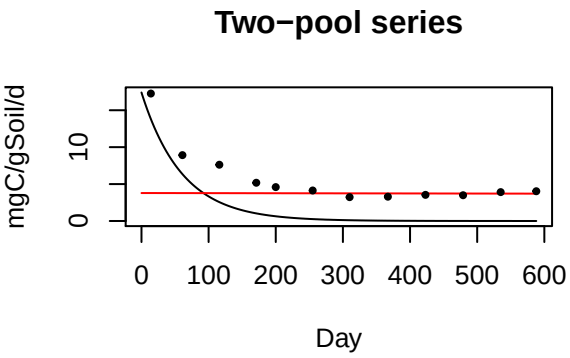

```
## [1] "AIC =  12.0706066794514"
## [1] "k1= 0.016533716725632"
## [2] "k2= 3.75203189070619e-05"
## [3] "a21= 0.0343211340251354"
## [4] "Proportion of C0 in pool 1= 0.010687124385821"
```




```
## [1] "AIC =  10.0706066796517"
```





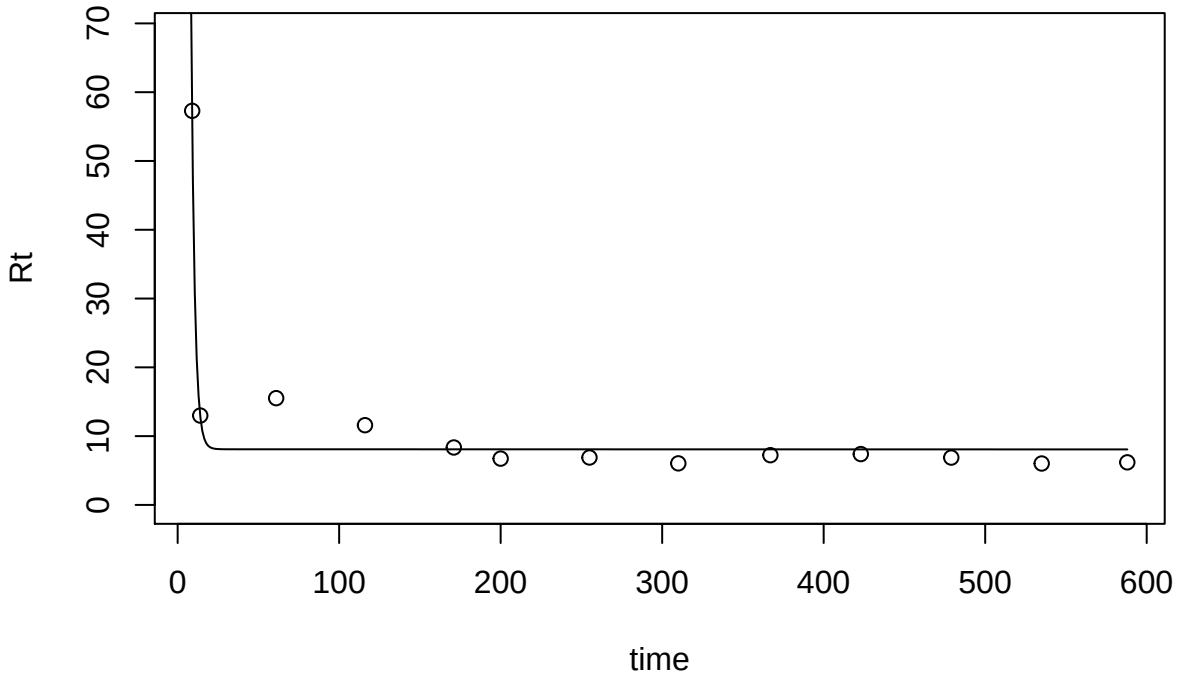


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	8.070607	0.0165337	3.75e-05	0.0103195	NA	NA
Two-pool feedback	12.070607	0.0165337	3.75e-05	0.0110263	0.0639530	1.45e-05
Two-pool series	10.070607	0.0165337	3.75e-05	0.0106871	0.0343211	NA

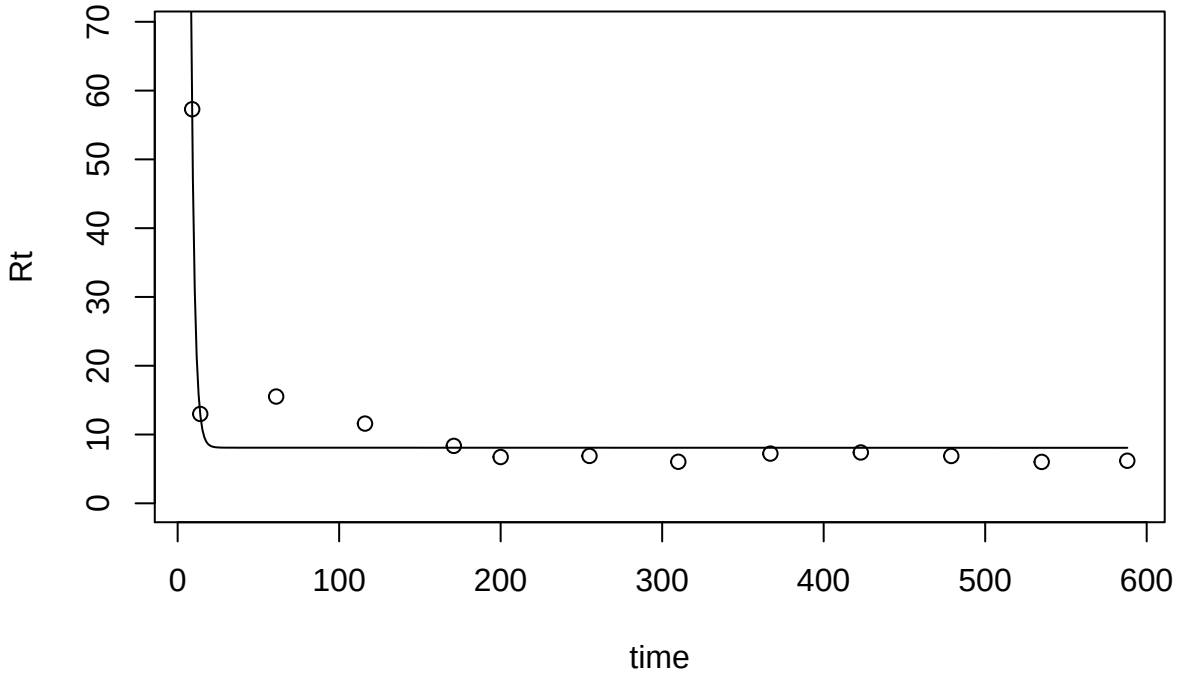
Variable C_CostaNF_15:

Decomposition rates over time at 15 degrees for Costa Rica, native forest

```
## [1] "k1= 0.457776977094205"
## [2] "k2= 4.05319692643577e-06"
## [3] "proportion of C0 in pool 1= 0.00319142483080548"
```

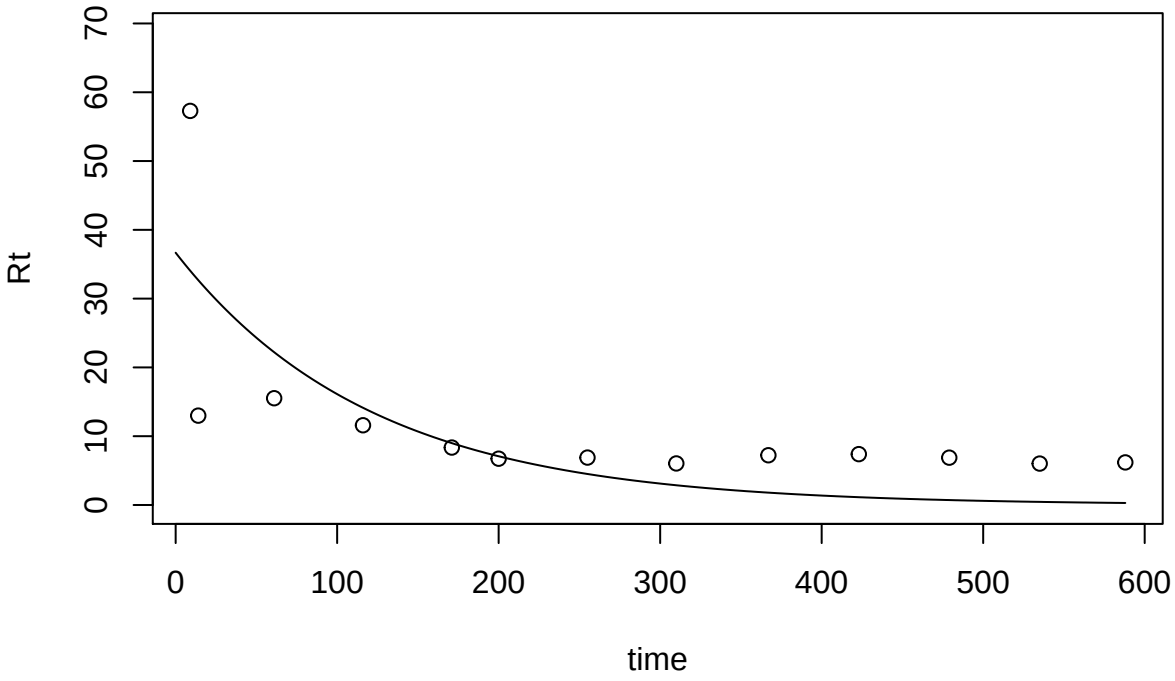



```
## [1] "AIC =  2.23612961789281"
## [1] "k1= 0.457766777863056"
## [2] "k2= 1.4219965693158e-05"
## [3] "a21= 0.714975471404225"
## [4] "a12= 0.999975320874332"
## [5] "Proportion of C0 in pool 1= 0.0112282560486734"
```

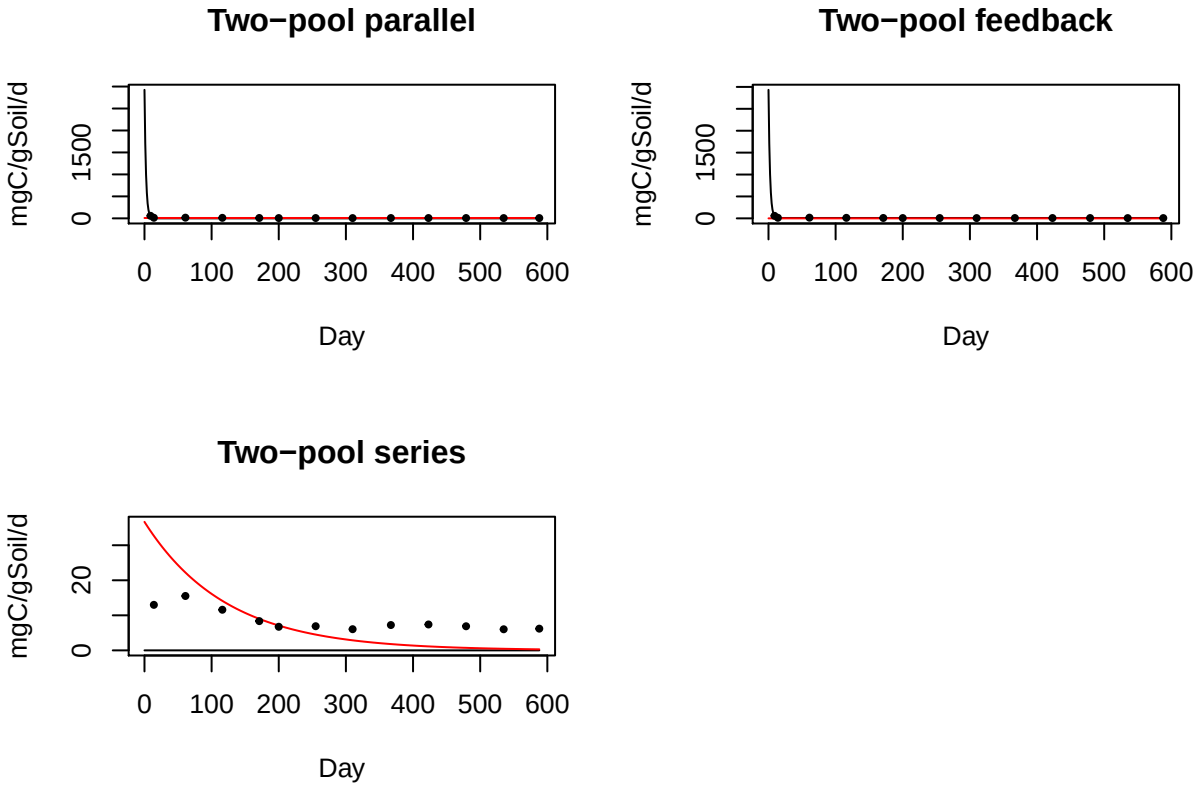



```
## [1] "AIC =  6.2361296181773"
## [1] "k1= 5.08128173838311e-22"
## [2] "k2= 0.00822197655671646"
## [3] "a21= 3.01741255543386e-05"
```

```
## [4] "Proportion of C0 in pool 1= 0.997771988270149"
```




```
## [1] "AIC =  -0.995643681363479"
```



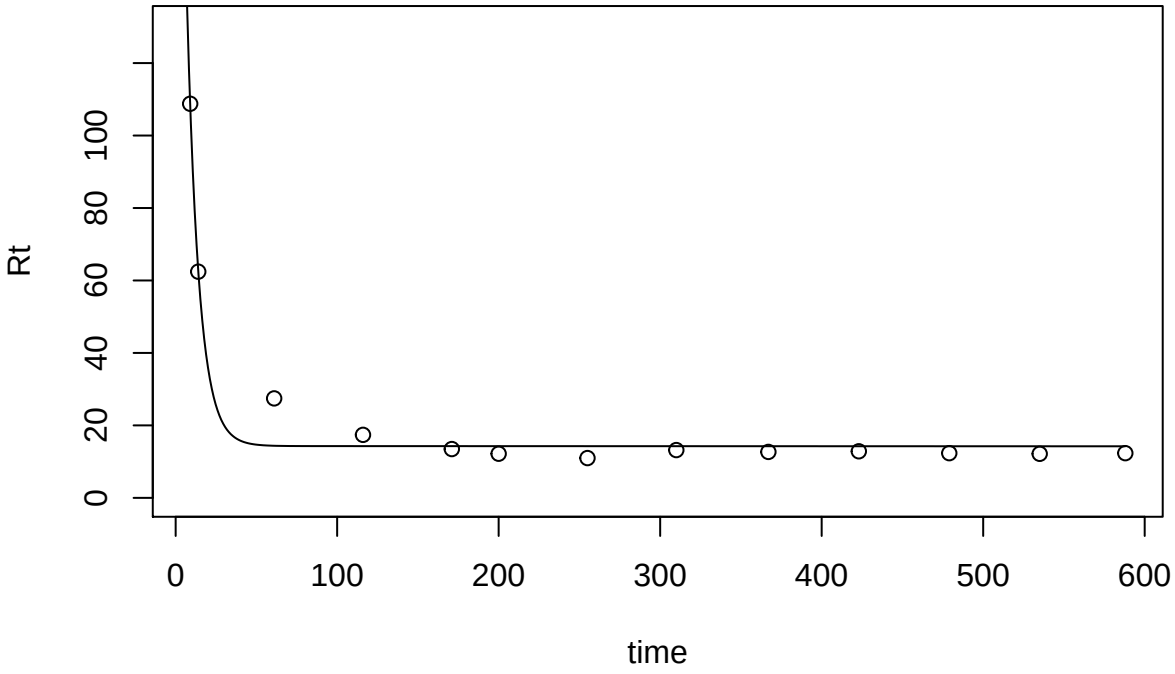
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	2.2361296	0.4577770	0.0000041	0.0031914	NA	NA
Two-pool feedback	6.2361296	0.4577668	0.0000142	0.0112283	0.7149755	0.9999753

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	-0.9956437	0.0000000	0.0082220	0.9977720	0.0000302	NA

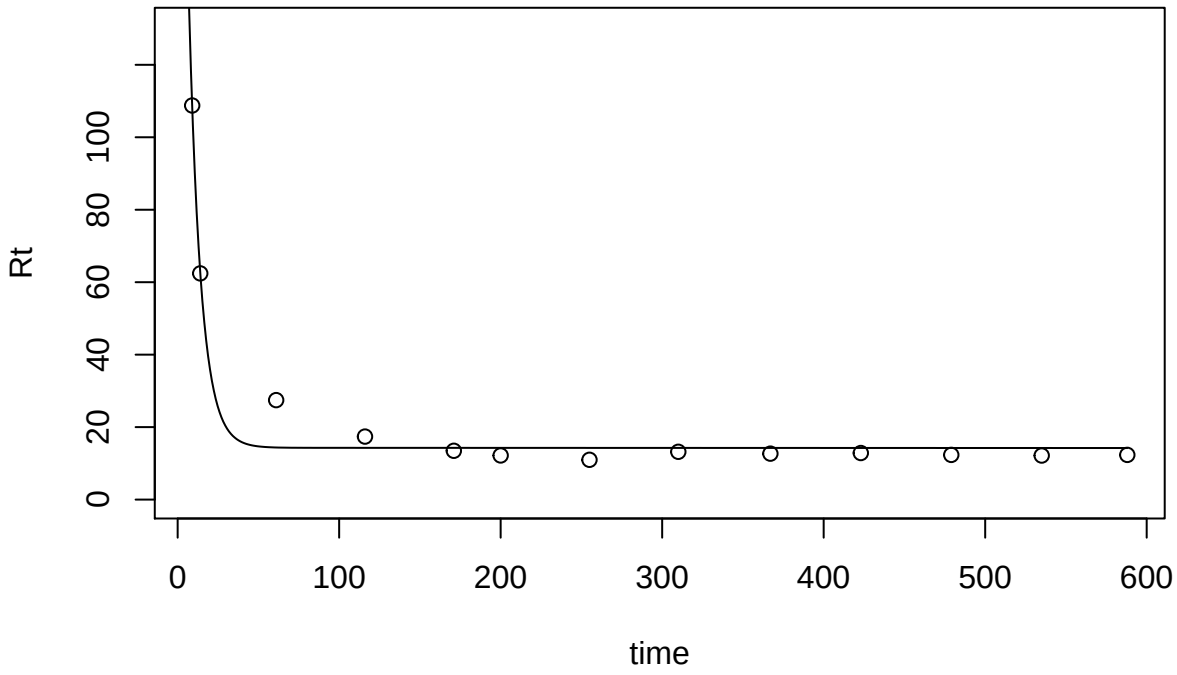
Variable C_CostaNF_25:

Decomposition rates over time at 25 degrees for Costa Rica, native forest

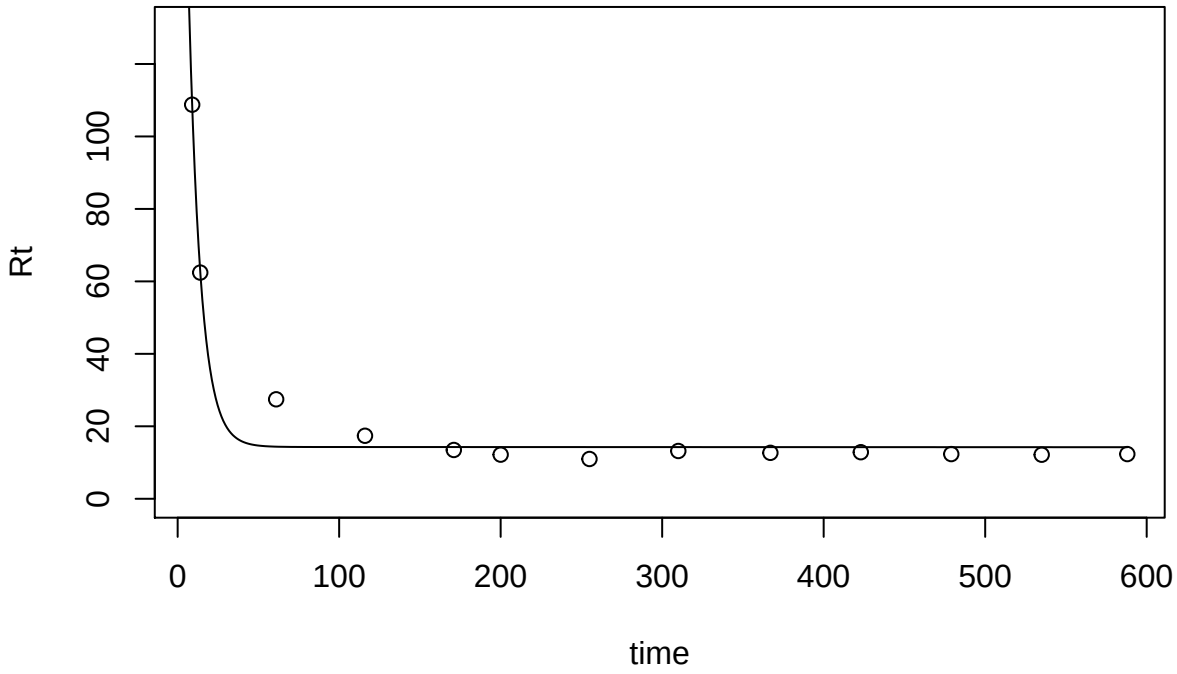
```
## [1] "k1= 0.133220349627969"
## [2] "k2= 7.14694112113508e-06"
## [3] "proportion of C0 in pool 1= 0.00117006465764063"
```



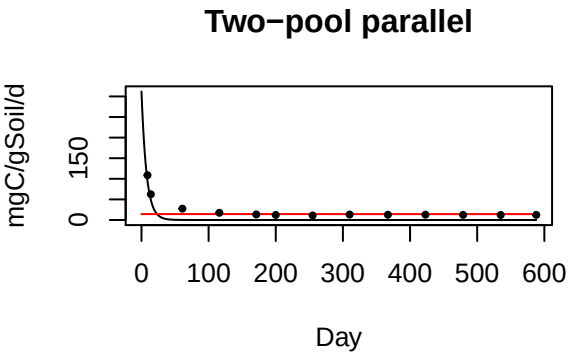

```
## [1] "AIC =  0.401515184374714"
## [1] "k1= 0.133196929817252"
## [2] "k2= 3.04755076581011e-05"
## [3] "a21= 0.76551020377373"
## [4] "a12= 0.999914079433701"
## [5] "Proportion of C0 in pool 1= 0.00521918900625085"
```

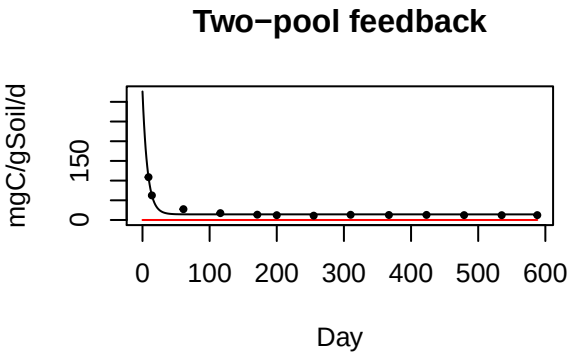


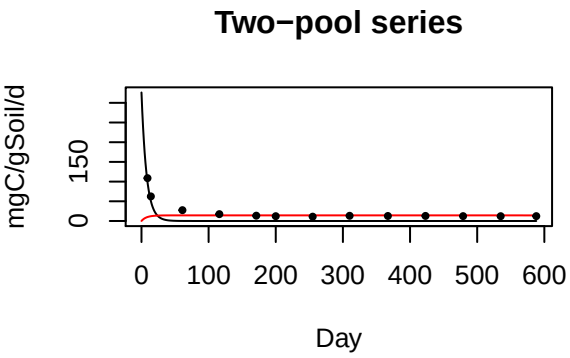

```
## [1] "AIC =  4.40151520319725"
## [1] "k1= 0.133220152607662"
## [2] "k2= 7.14694101100131e-06"
## [3] "a21= 0.9987669221635"
## [4] "Proportion of C0 in pool 1= 0.99200343234522"
```




```
## [1] "AIC =  2.40151535502575"
```





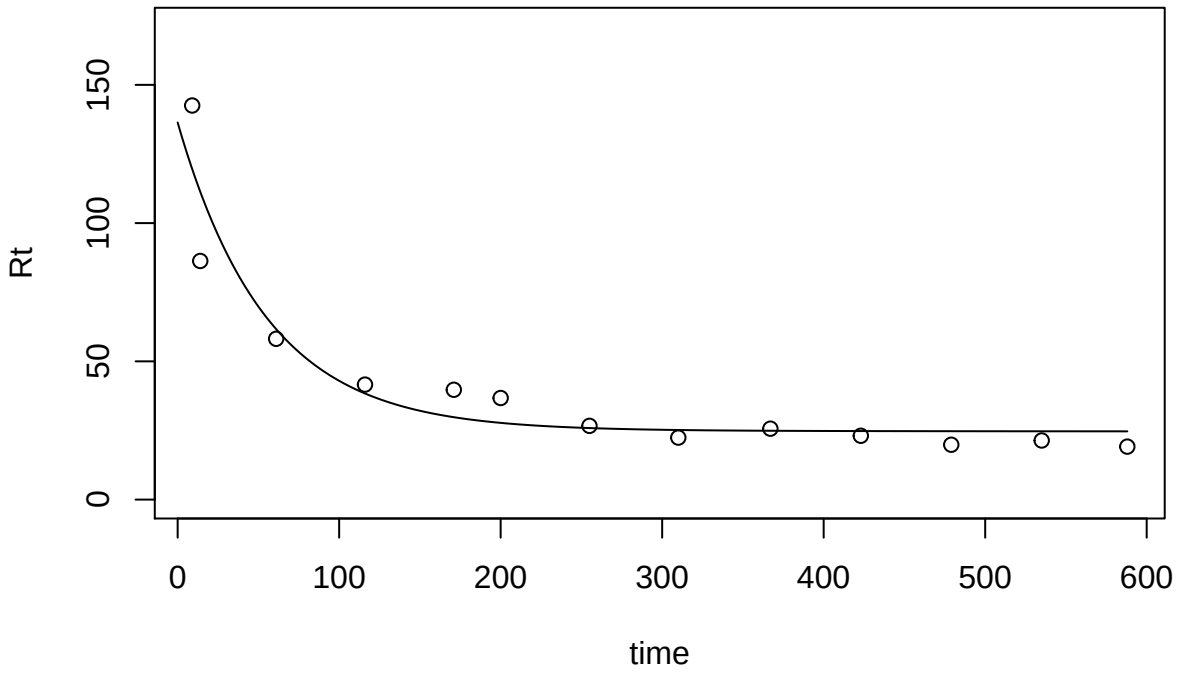


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	0.4015152	0.1332203	7.10e-06	0.0011701	NA	NA
Two-pool feedback	4.4015152	0.1331969	3.05e-05	0.0052192	0.7655102	0.9999141
Two-pool series	2.4015154	0.1332202	7.10e-06	0.9920034	0.9987669	NA

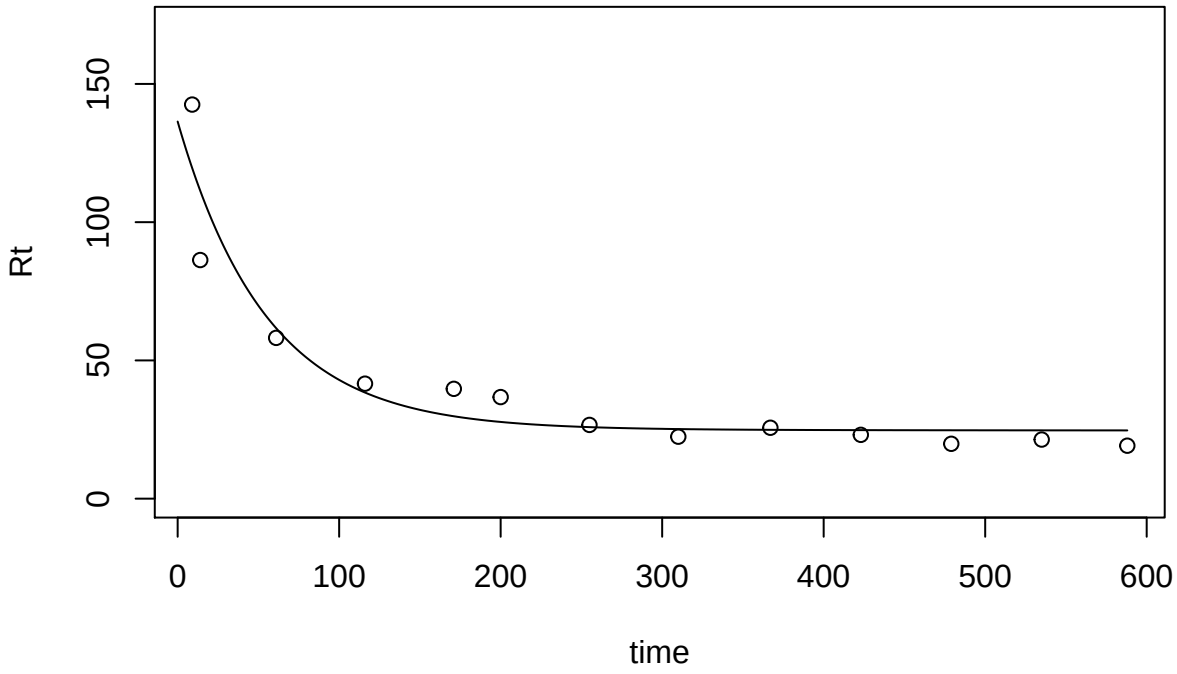
Variable C_CostaNF_35:

Decomposition rates over time at 35 degrees for Costa Rica, native forest

```
## [1] "k1= 0.0181689958036515"
## [2] "k2= 1.24567597882289e-05"
## [3] "proportion of C0 in pool 1= 0.00306627795717529"
```

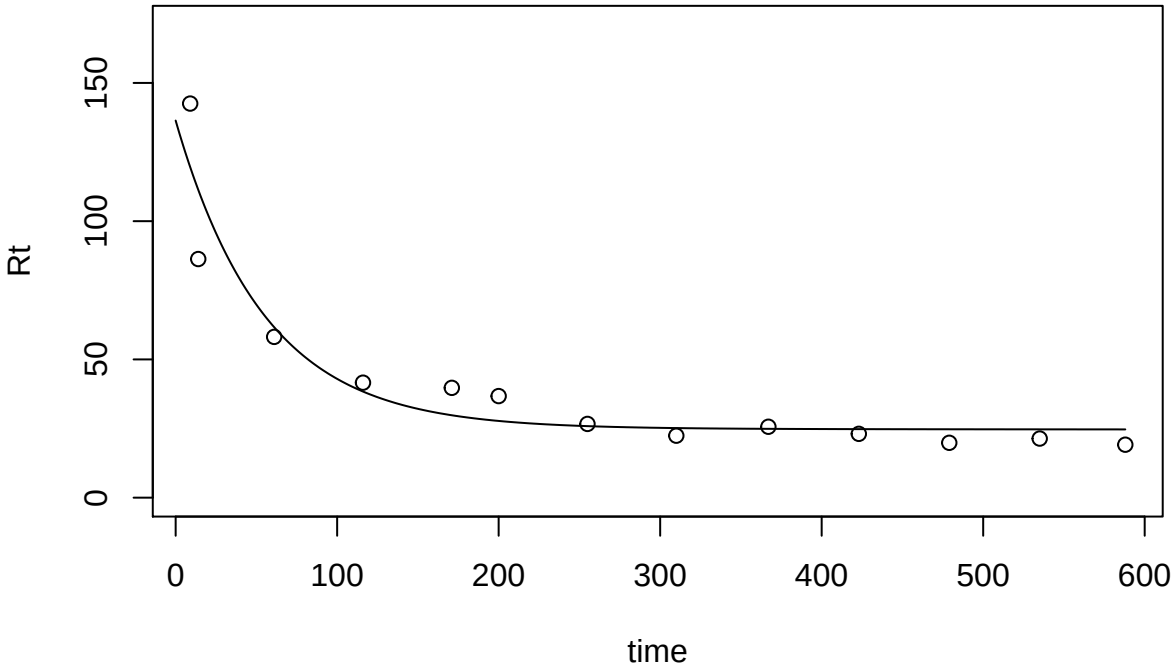



```
## [1] "AIC =  -3.40583730271081"
## [1] "k1= 0.0181576246549707"
## [2] "k2= 2.49642208547767e-05"
## [3] "a21= 0.500806061629134"
## [4] "a12= 0.999713952879575"
## [5] "Proportion of C0 in pool 1= 0.00751569608637226"
```

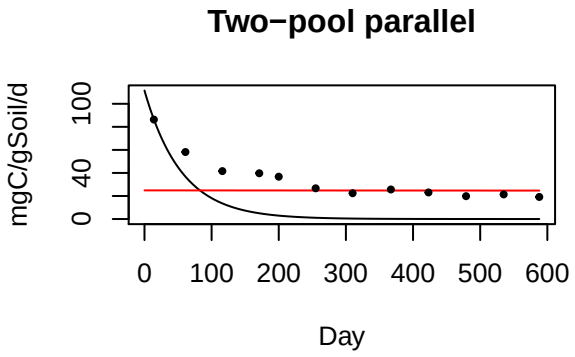


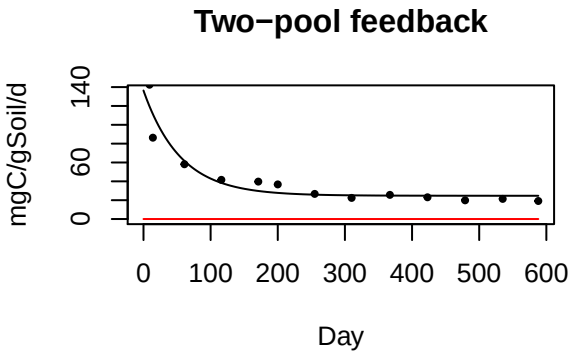

```
## [1] "AIC =  0.594162705631645"
## [1] "k1= 0.0181693193465497"
## [2] "k2= 1.24568242830304e-05"
## [3] "a21= 0.334313380100089"
```

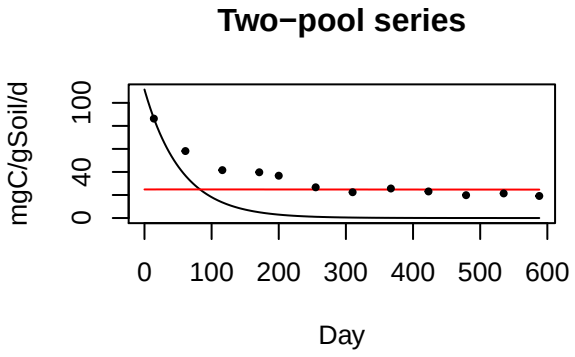
```
## [4] "Proportion of C0 in pool 1= 0.00460768782575754"
```




```
## [1] "AIC =  -1.40583730131044"
```







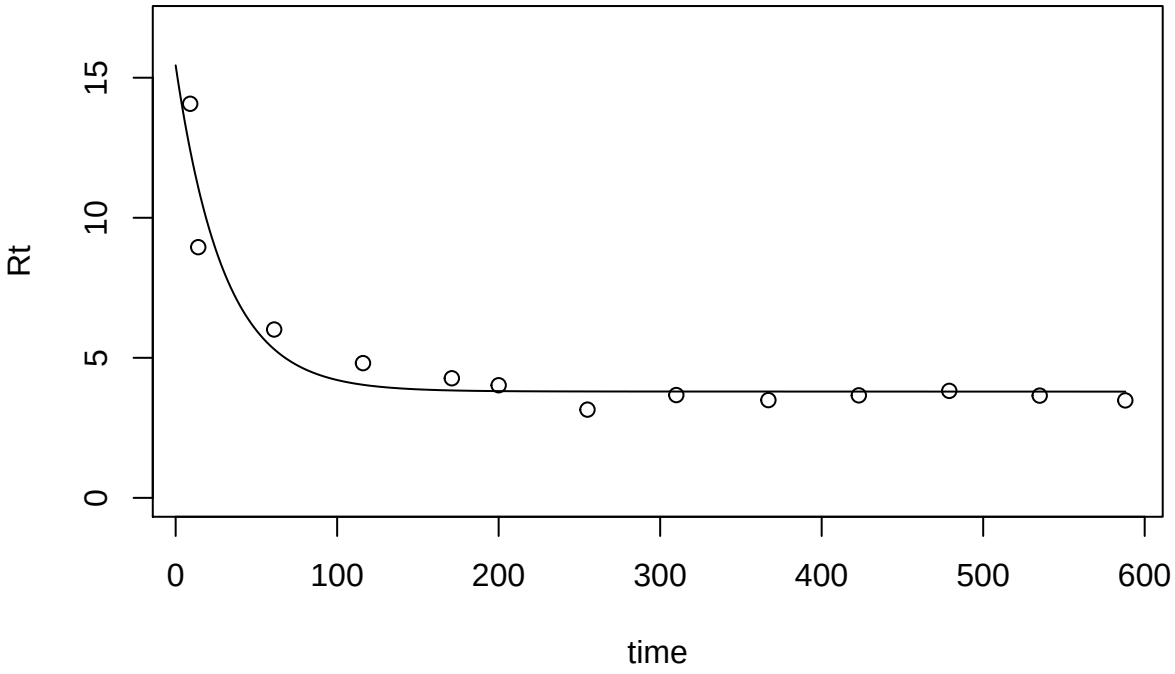
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	-3.4058373	0.0181690	1.25e-05	0.0030663	NA	NA
Two-pool feedback	0.5941627	0.0181576	2.50e-05	0.0075157	0.5008061	0.999714

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	-1.4058373	0.0181693	1.25e-05	0.0046077	0.3343134	NA

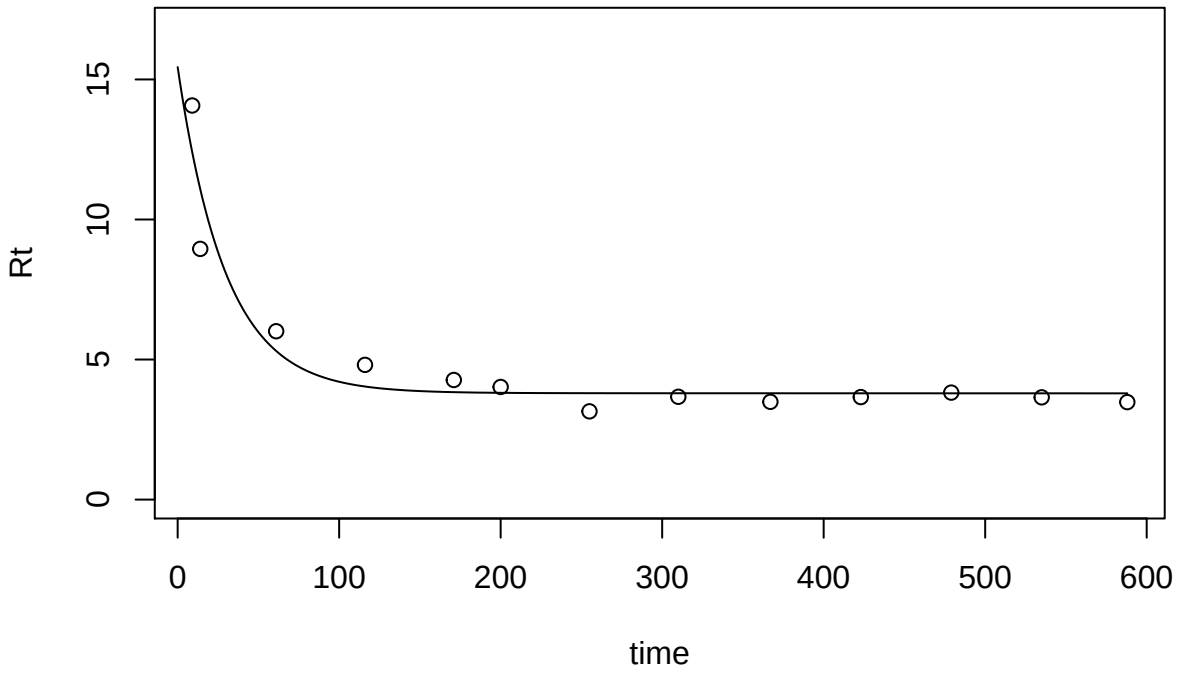
Variable C_CostaPas_15:

Decomposition rates over time at 15 degrees for Costa Rica, Pasture

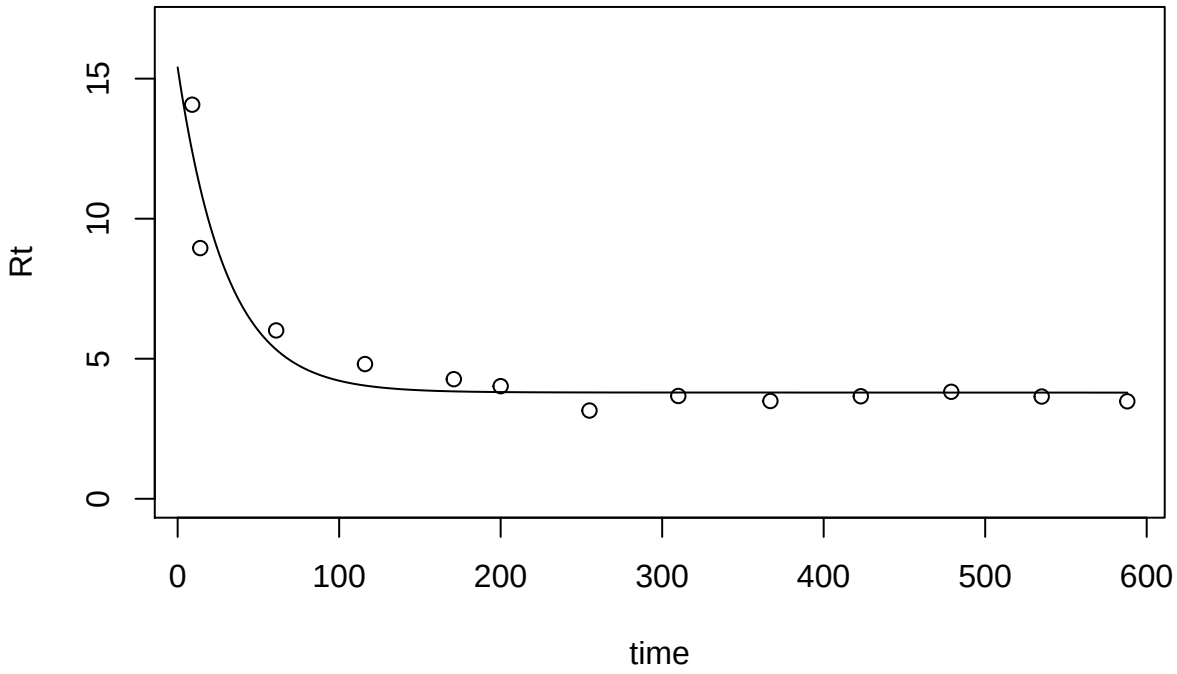
```
## [1] "k1= 0.0335019188215569"
## [2] "k2= 2.68359778741691e-06"
## [3] "proportion of C0 in pool 1= 0.000245425961526602"
```



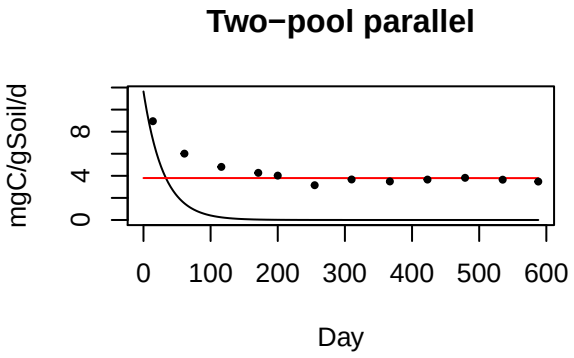

```
## [1] "AIC =  6.67200347025869"
## [1] "k1= 0.0334630777451753"
## [2] "k2= 4.1852307887006e-05"
## [3] "a21= 0.935868906777484"
## [4] "a12= 0.999930723089912"
## [5] "Proportion of C0 in pool 1= 0.00508026573582715"
```

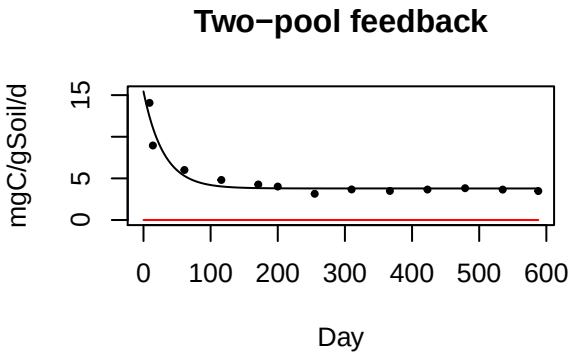


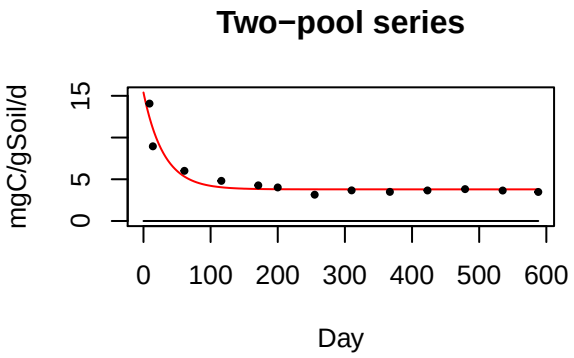

```
## [1] "AIC =  10.67200348343"
## [1] "k1= 2.68162612663851e-06"
## [2] "k2= 0.0331999899281053"
## [3] "a21= 0.999811275260625"
## [4] "Proportion of C0 in pool 1= 0.99967240250509"
```




```
## [1] "AIC =  8.67197934842182"
```





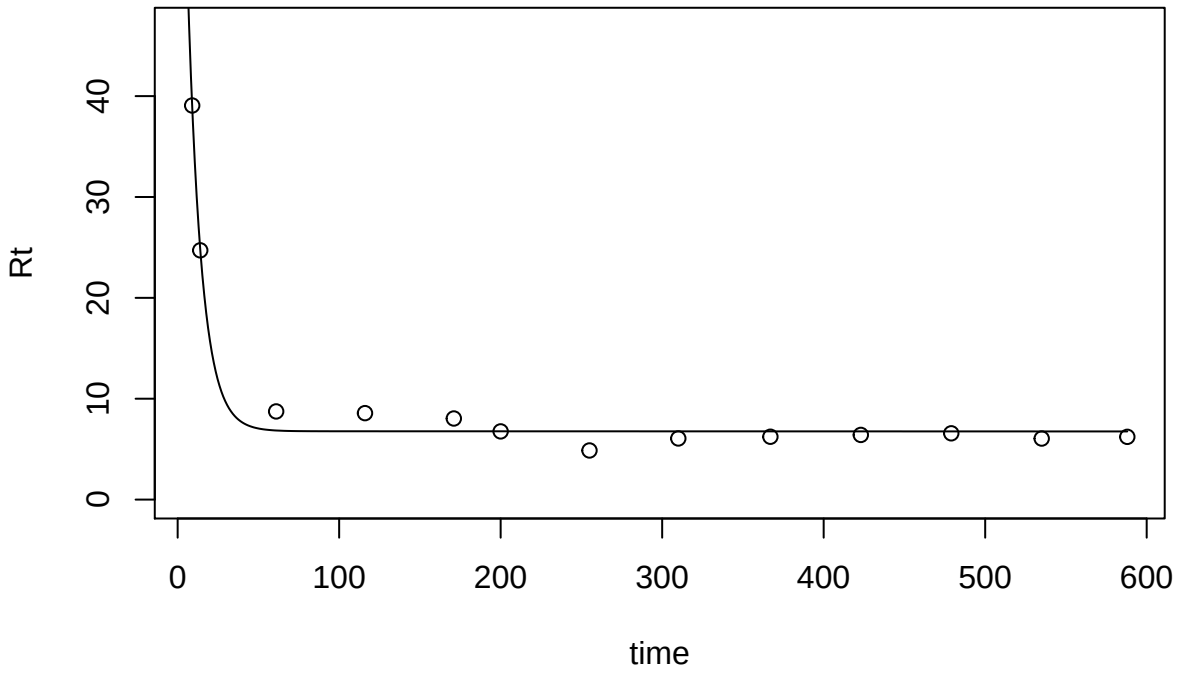


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	6.672003	0.0335019	2.70e-06	0.0002454	NA	NA
Two-pool feedback	10.672004	0.0334631	4.19e-05	0.0050803	0.9358689	0.9999307
Two-pool series	8.671979	0.0000027	3.32e-02	0.9996724	0.9998113	NA

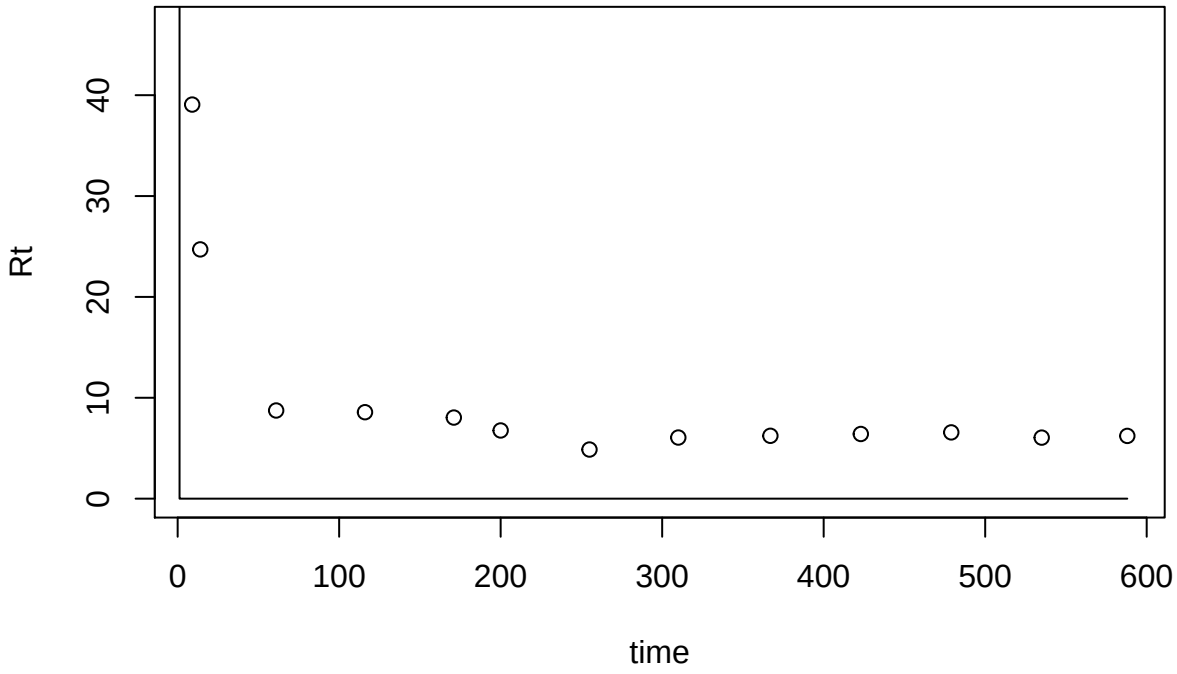
Variable C_CostaPas_25:

Decomposition rates over time at 25 degrees for Costa Rica, Pasture

```
## [1] "k1= 0.11620503508009"
## [2] "k2= 4.7874551176458e-06"
## [3] "proportion of C0 in pool 1= 0.000556586711194851"
```

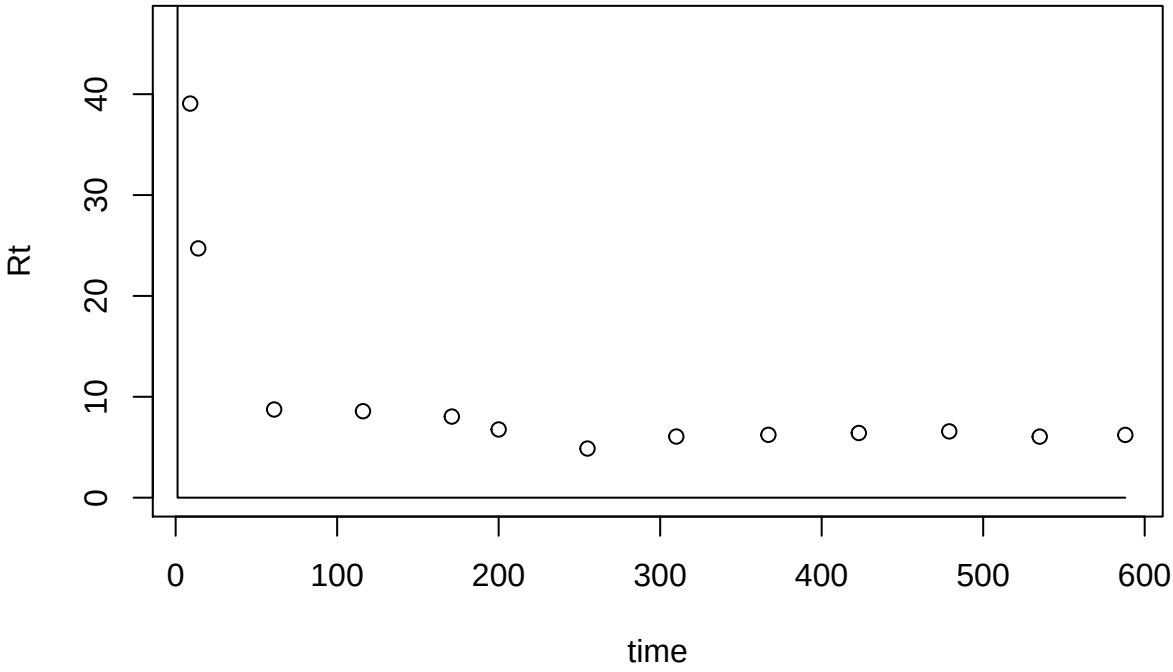



```
## [1] "AIC =  5.88667005577592"
## [1] "k1= 1343790416469.79"
## [2] "k2= 2.40325415411206e+58"
## [3] "a21= 1.78893797392887e-05"
## [4] "a12= 0.99999992192036"
## [5] "Proportion of C0 in pool 1= 0.999983869017145"
```

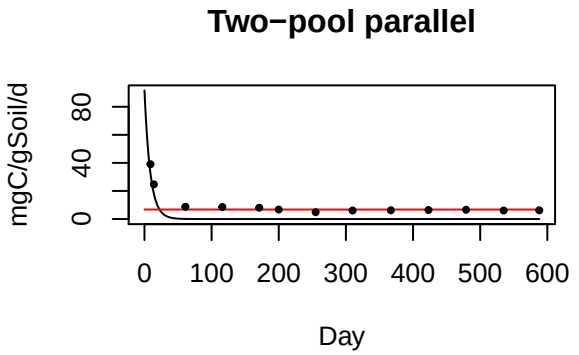


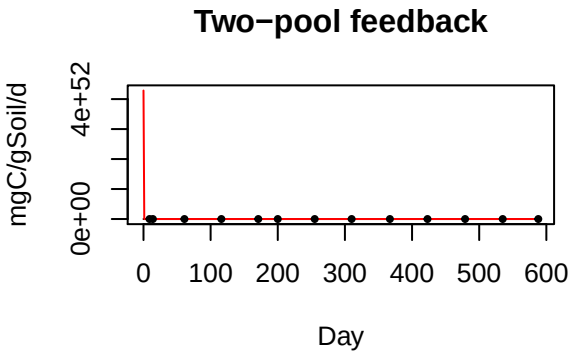

```
## [1] "AIC =  -0.639267860440514"
## [1] "k1= 75722112534.4921"
## [2] "k2= 23844.2632846327"
## [3] "a21= 9.36033599518993e-08"
```

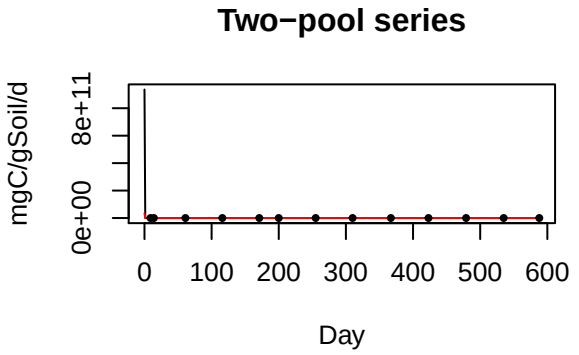
```
## [4] "Proportion of C0 in pool 1= 8.73185345529048e-06"
```




```
## [1] "AIC =  -2.63926786044051"
```







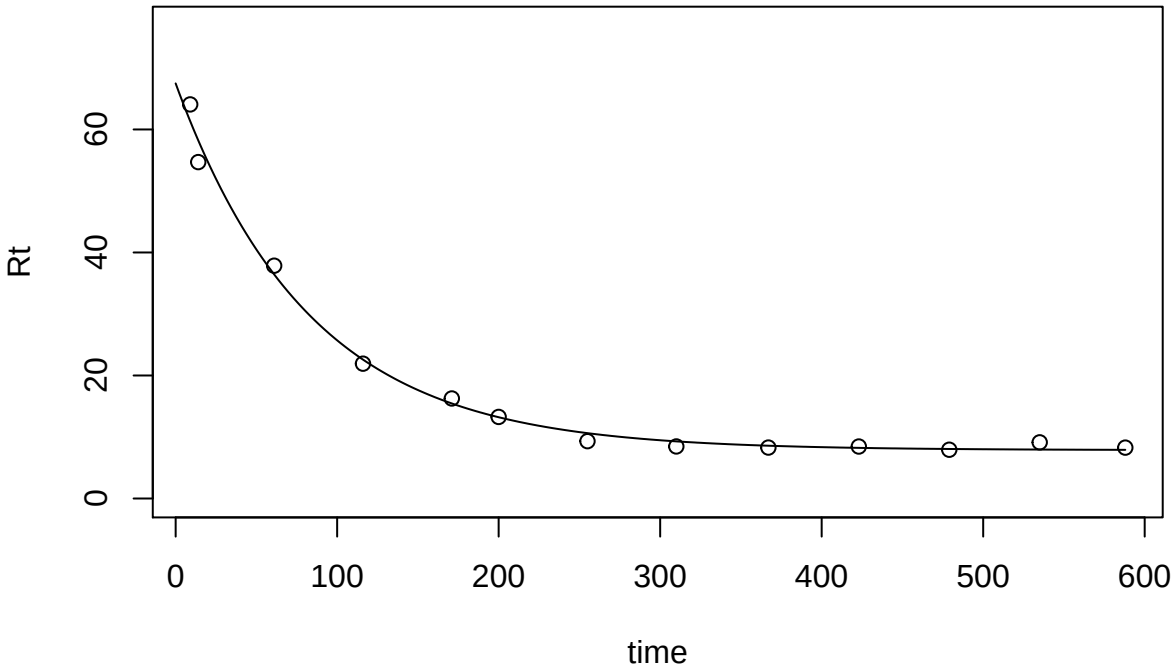
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	5.8866701	1.162050e-01	4.800000e-06	0.0005566	NA	NA

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool feedback	-0.6392679	1.343790e+12	2.403254e+58	0.9999839	1.79e-05	0.9999999
Two-pool series	-2.6392679	7.572211e+10	2.384426e+04	0.0000087	1.00e-07	NA

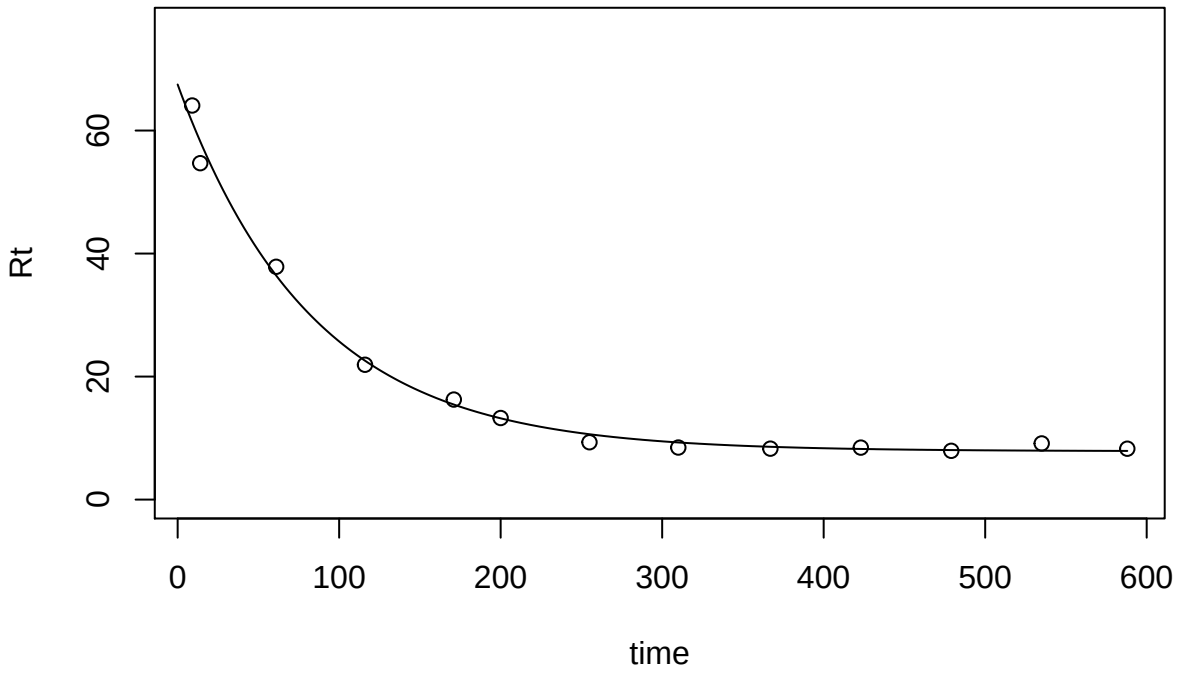
Variable C_CostaPas_35:

Decomposition rates over time at 35 degrees for Costa Rica, Pasture

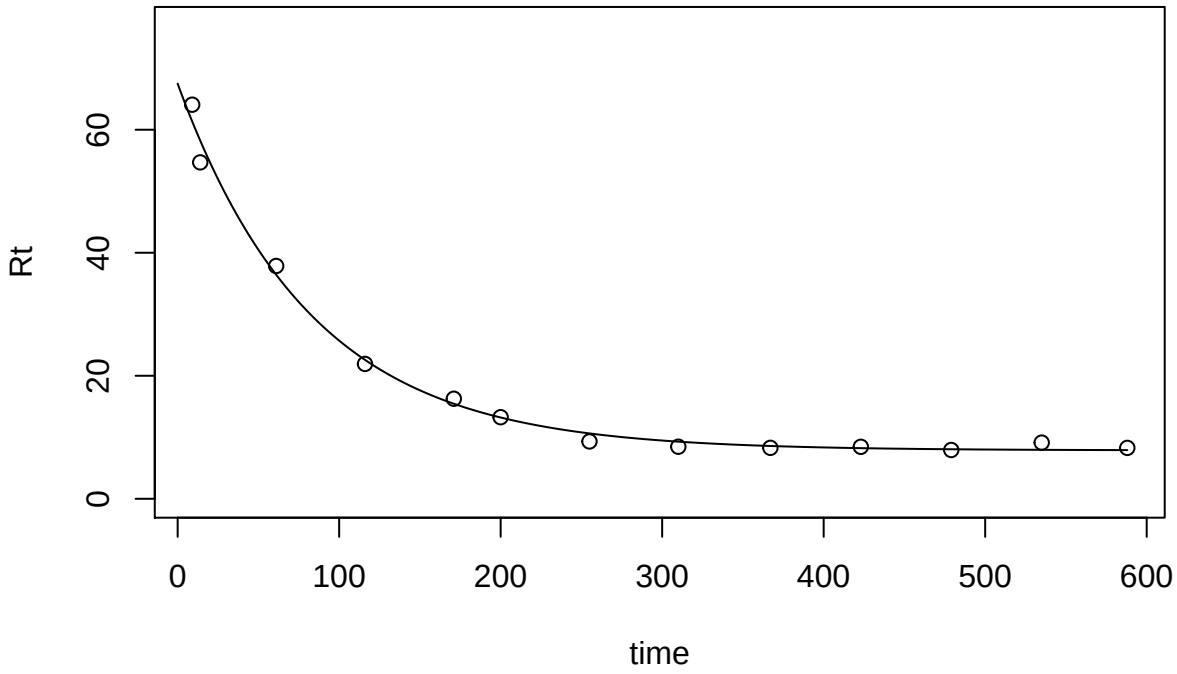
```
## [1] "k1= 0.0120670366757152"
## [2] "k2= 5.58928944794966e-06"
## [3] "proportion of C0 in pool 1= 0.00348791409156701"
```



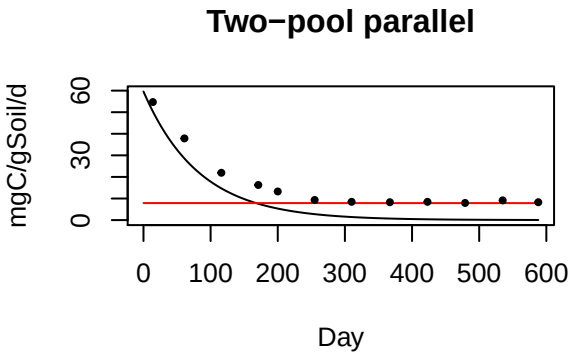

```
## [1] "AIC =  4.53775710143156"
## [1] "k1= 0.0120633233471111"
## [2] "k2= 9.30185264315721e-06"
## [3] "a21= 0.398945953403457"
## [4] "a12= 0.999975309220902"
## [5] "Proportion of C0 in pool 1= 0.00657292188994069"
```

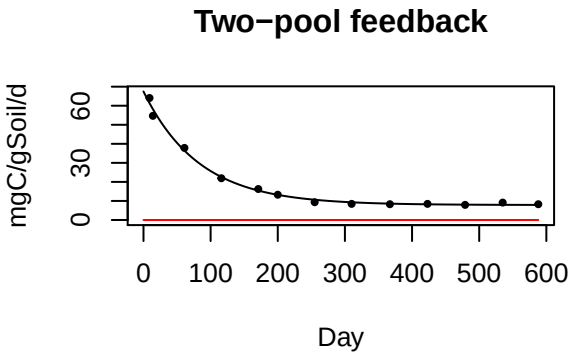


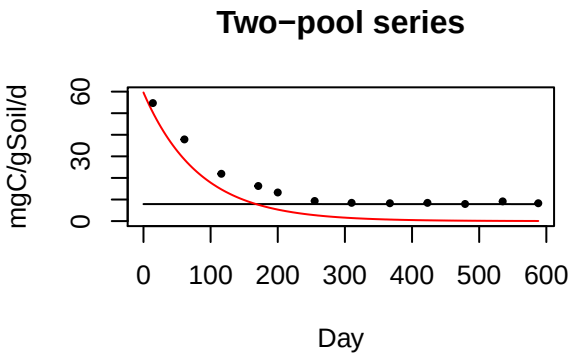

```
## [1] "AIC =  8.53775710141252"
## [1] "k1= 5.58928926350618e-06"
## [2] "k2= 0.012067036240728"
## [3] "a21= 1.97198714087521e-05"
## [4] "Proportion of C0 in pool 1= 0.996512076739335"
```




```
## [1] "AIC =  6.53775710143157"
```





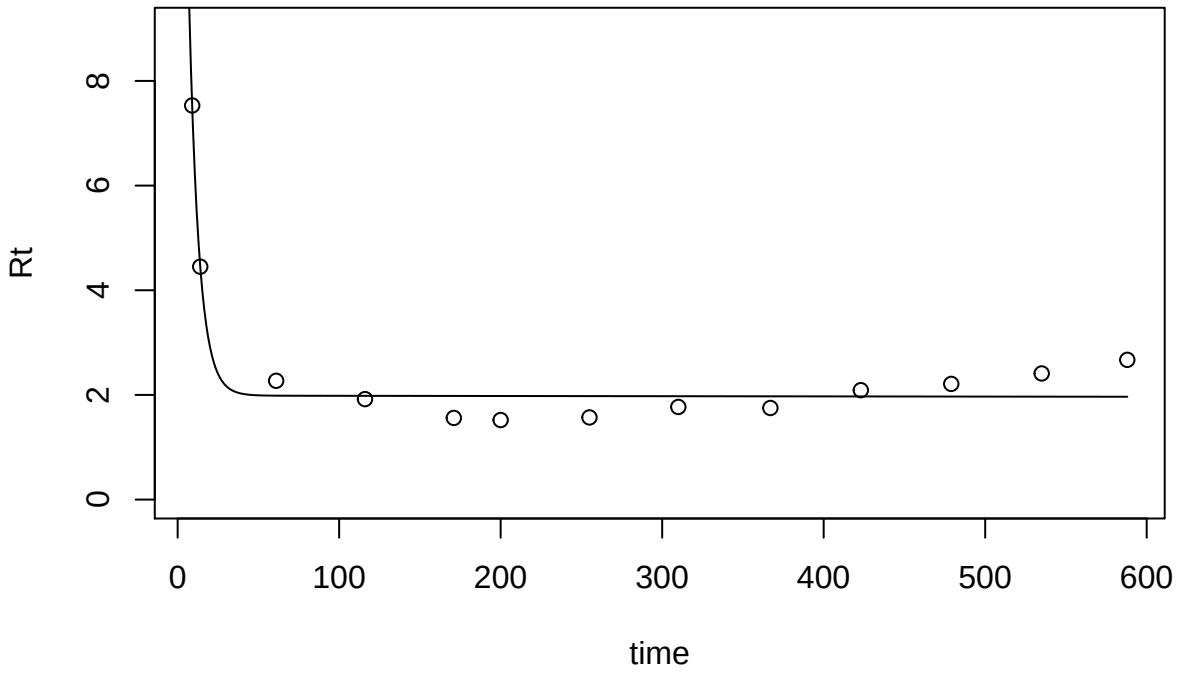


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	4.537757	0.0120670	0.0000056	0.0034879	NA	NA
Two-pool feedback	8.537757	0.0120633	0.0000093	0.0065729	0.3989460	0.9999753
Two-pool series	6.537757	0.0000056	0.0120670	0.9965121	0.0000197	NA

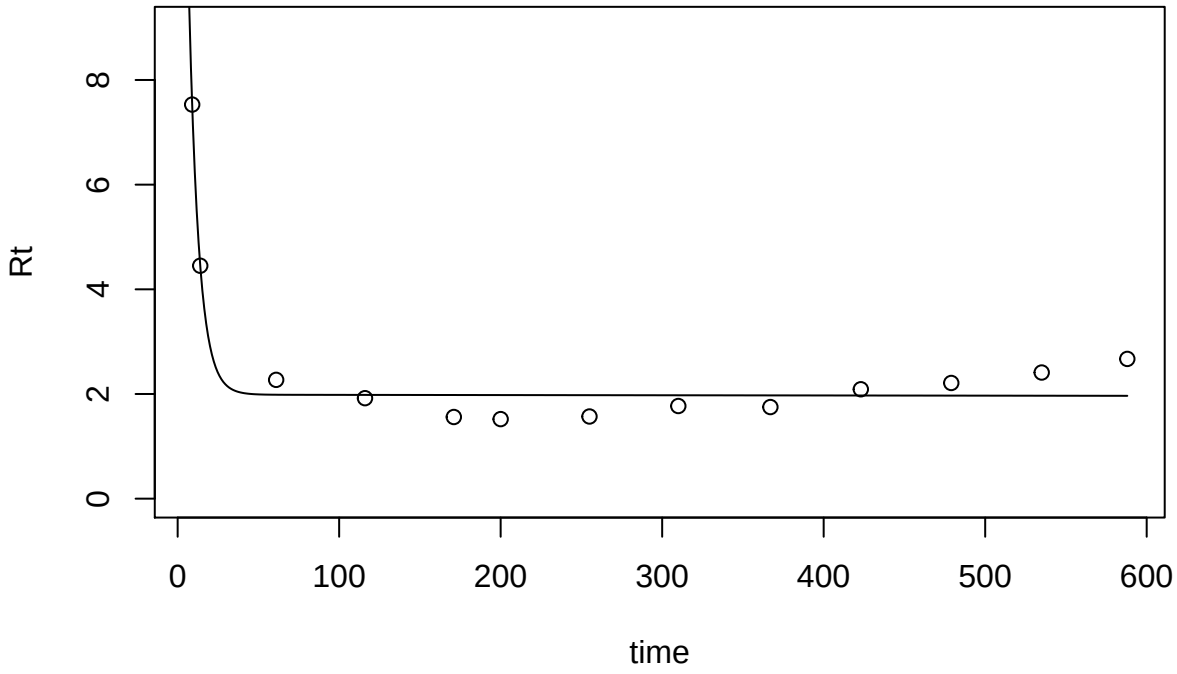
Variable C_BrazilNF_15:

Decomposition rates over time at 15 degrees for Brazil, native forest

```
## [1] "k1= 0.161588504298815"
## [2] "k2= 1.87674550162759e-05"
## [3] "proportion of C0 in pool 1= 0.00137969153476858"
```

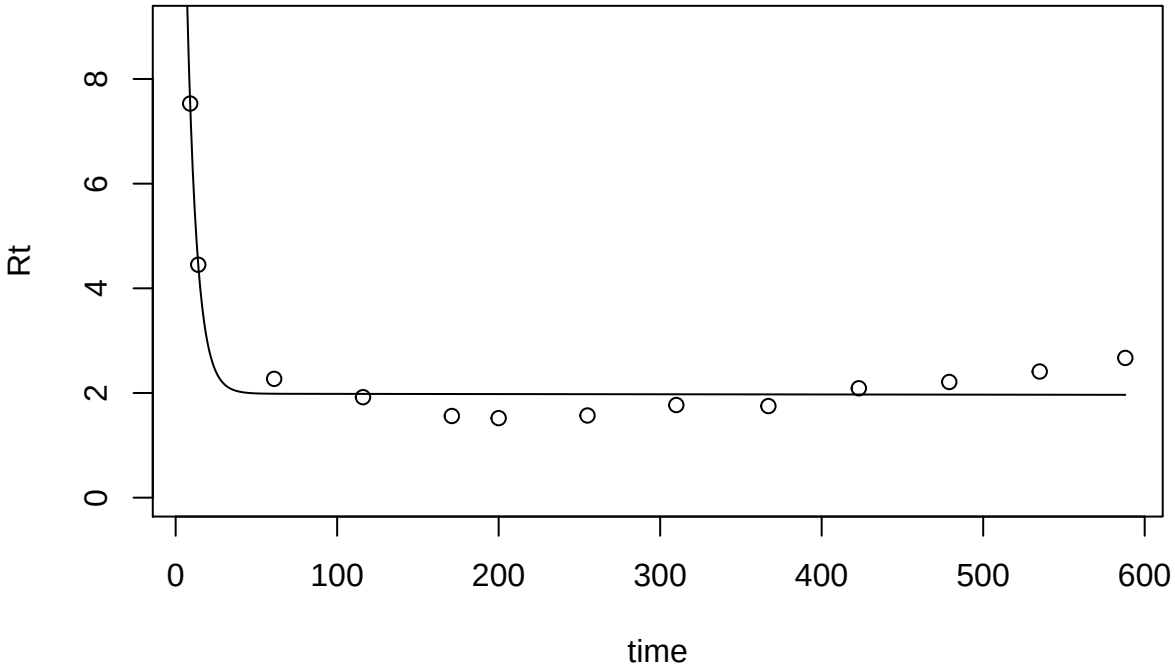



```
## [1] "AIC =  10.3245113061848"
## [1] "k1= 0.161547265200234"
## [2] "k2= 5.97917528687331e-05"
## [3] "a21= 0.686095721157203"
## [4] "a12= 0.999918716965641"
## [5] "Proportion of C0 in pool 1= 0.00476585877209579"
```

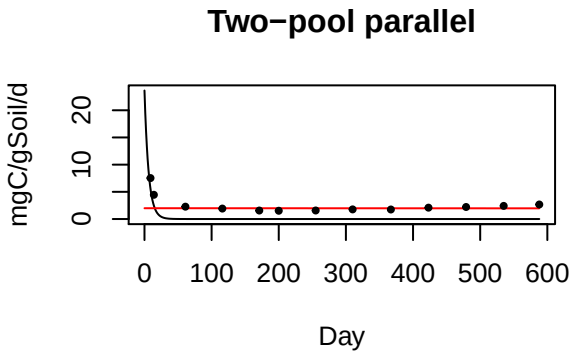


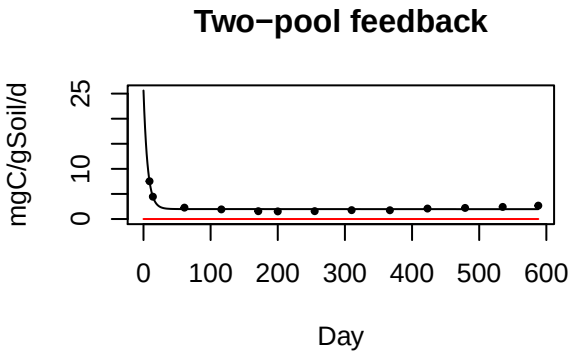

```
## [1] "AIC =  14.3245112956096"
## [1] "k1= 0.161588510320637"
## [2] "k2= 1.87674551138969e-05"
## [3] "a21= 0.78599205858669"
```

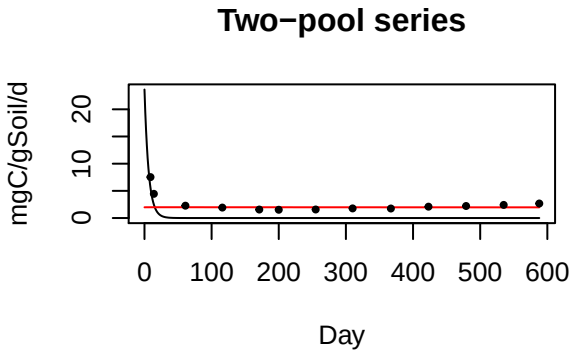
```
## [4] "Proportion of C0 in pool 1= 0.0064496787956439"
```




```
## [1] "AIC =  12.3245113015804"
```







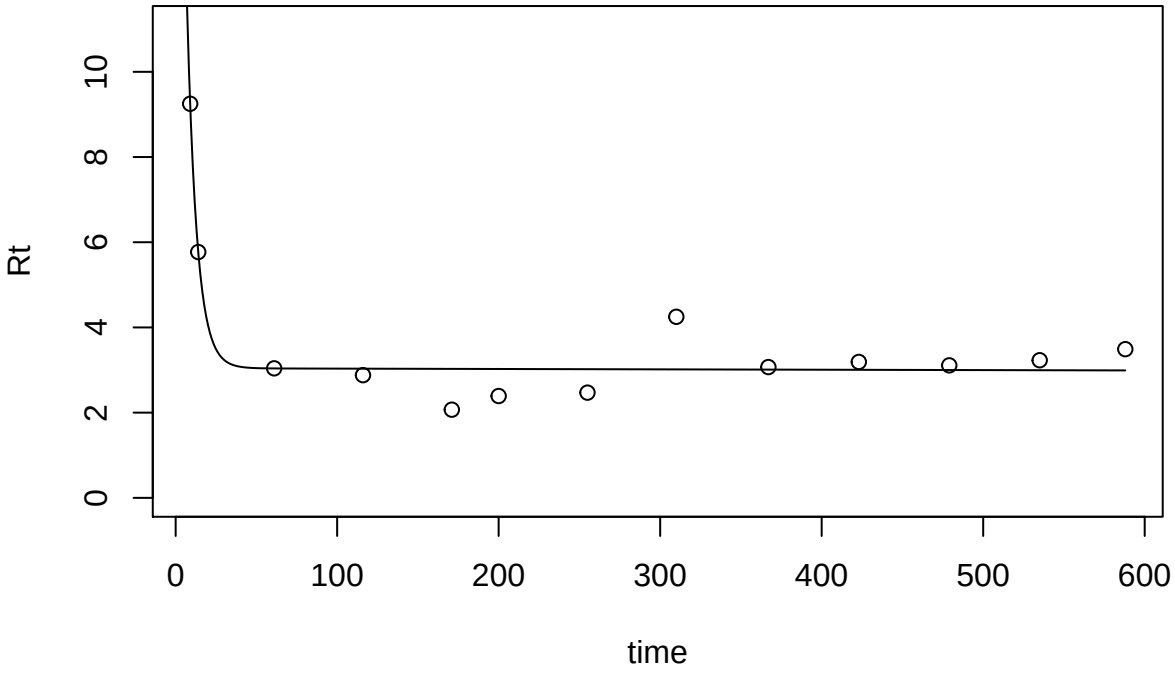
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	10.32451	0.1615885	1.88e-05	0.0013797	NA	NA
Two-pool feedback	14.32451	0.1615473	5.98e-05	0.0047659	0.6860957	0.9999187

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	12.32451	0.1615885	1.88e-05	0.0064497	0.7859921	NA

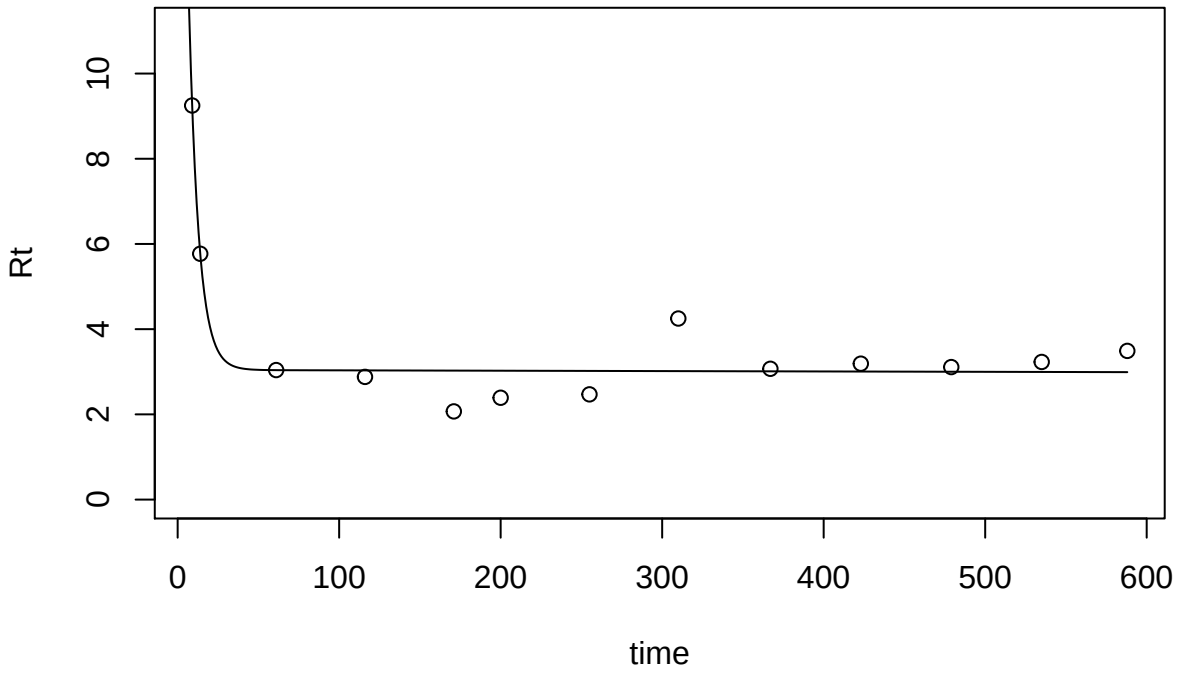
Variable C_BrazilNF_25:

Decomposition rates over time at 25 degrees for Brazil, native forest

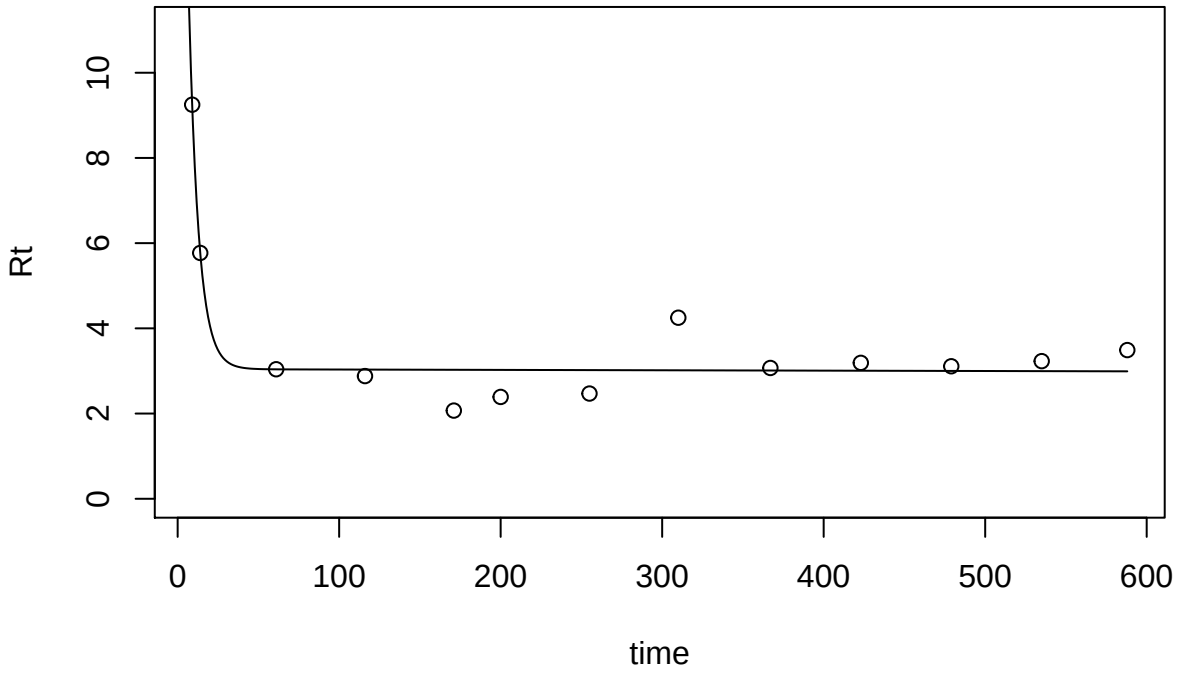
```
## [1] "k1= 0.163932673154483"
## [2] "k2= 2.87452868211198e-05"
## [3] "proportion of C0 in pool 1= 0.00155548981953374"
```



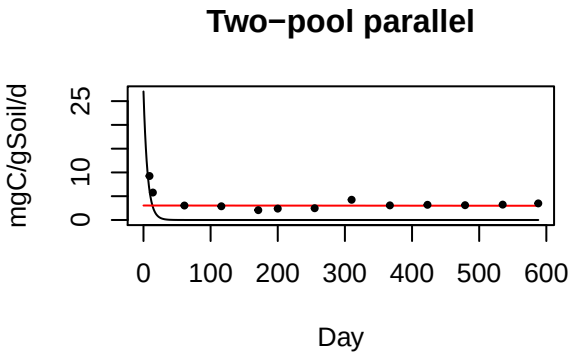

```
## [1] "AIC =  8.61134377887769"
## [1] "k1= 0.163932688500975"
## [2] "k2= 2.87458490694811e-05"
## [3] "a21= 0.783695168391366"
## [4] "a12= 2.49508670670529e-05"
## [5] "Proportion of C0 in pool 1= 0.00719578007817567"
```

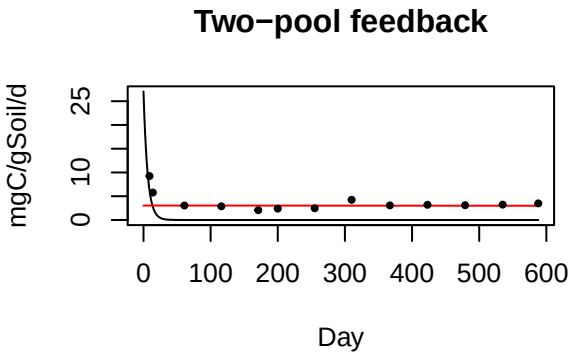


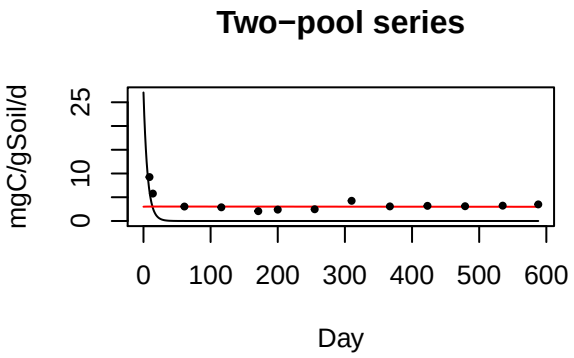

```
## [1] "AIC =  12.6113437786956"
## [1] "k1= 0.163932694670089"
## [2] "k2= 2.87452868530557e-05"
## [3] "a21= 0.869033008338423"
## [4] "Proportion of C0 in pool 1= 0.0118908371530175"
```




```
## [1] "AIC =  10.6113437790914"
```





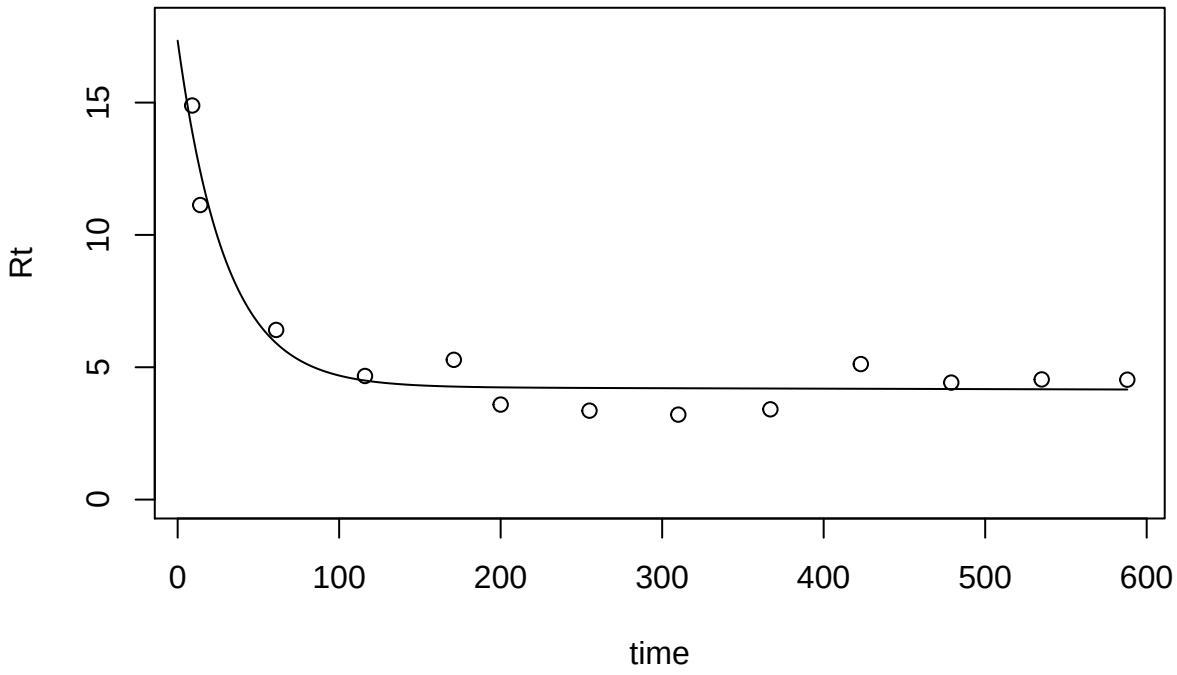


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	8.611344	0.1639327	2.87e-05	0.0015555	NA	NA
Two-pool feedback	12.611344	0.1639327	2.87e-05	0.0071958	0.7836952	2.5e-05
Two-pool series	10.611344	0.1639327	2.87e-05	0.0118908	0.8690330	NA

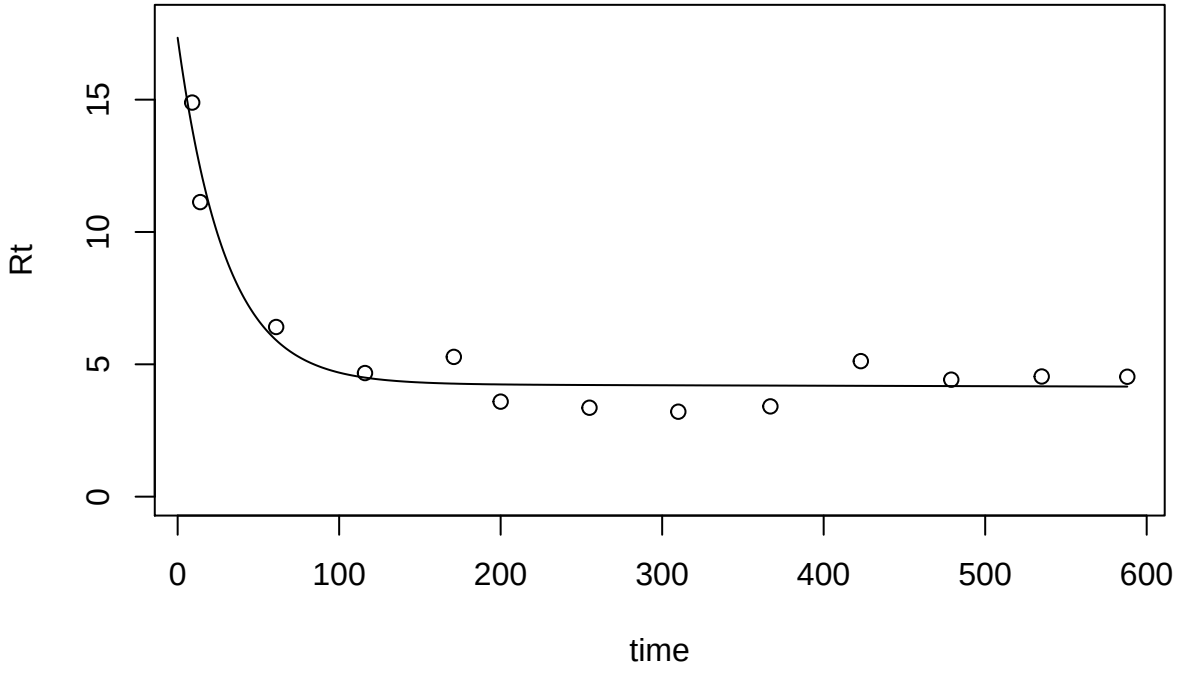
Variable C_BrazilNF_35:

Decomposition rates over time at 35 degrees for Brazil, native forest

```
## [1] "k1= 0.0338168772580774"
## [2] "k2= 4.03275342293277e-05"
## [3] "proportion of C0 in pool 1= 0.00364901073293644"
```

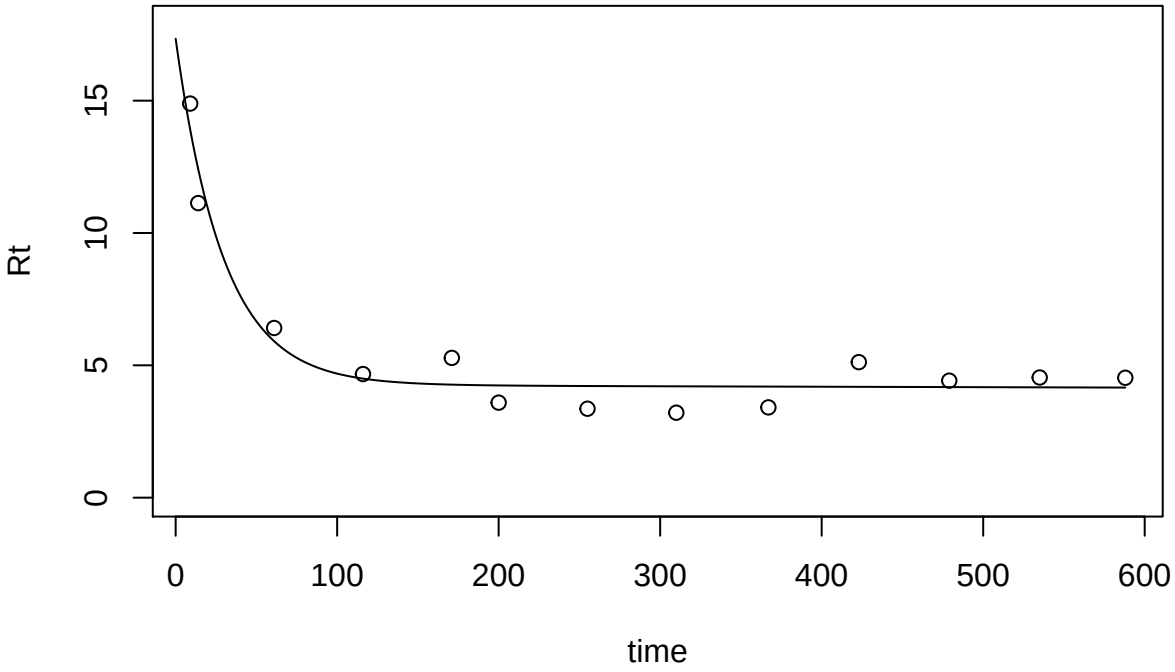



```
## [1] "AIC =  7.00551266031392"
## [1] "k1= 0.0338168665484741"
## [2] "k2= 4.03279332054128e-05"
## [3] "a21= 0.425087205874615"
## [4] "a12= 2.33061476300755e-05"
## [5] "Proportion of C0 in pool 1= 0.00635269289375845"
```

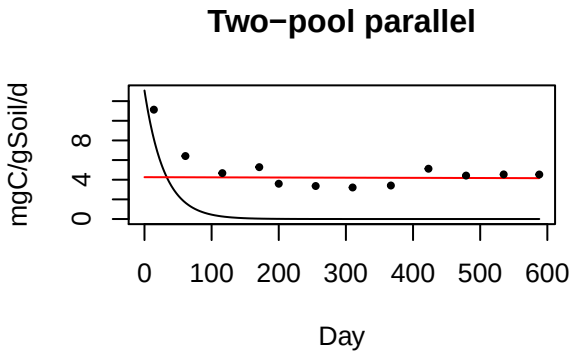


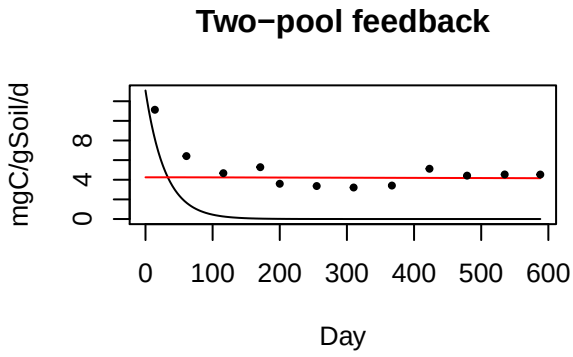

```
## [1] "AIC =  11.0055126600779"
## [1] "k1= 0.0338170367693799"
## [2] "k2= 4.03275497927036e-05"
## [3] "a21= 0.685550346864856"
```

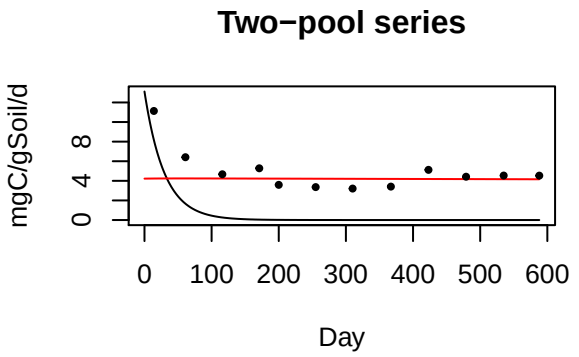
```
## [4] "Proportion of C0 in pool 1= 0.0116348414174167"
```




```
## [1] "AIC =  9.00551265362499"
```







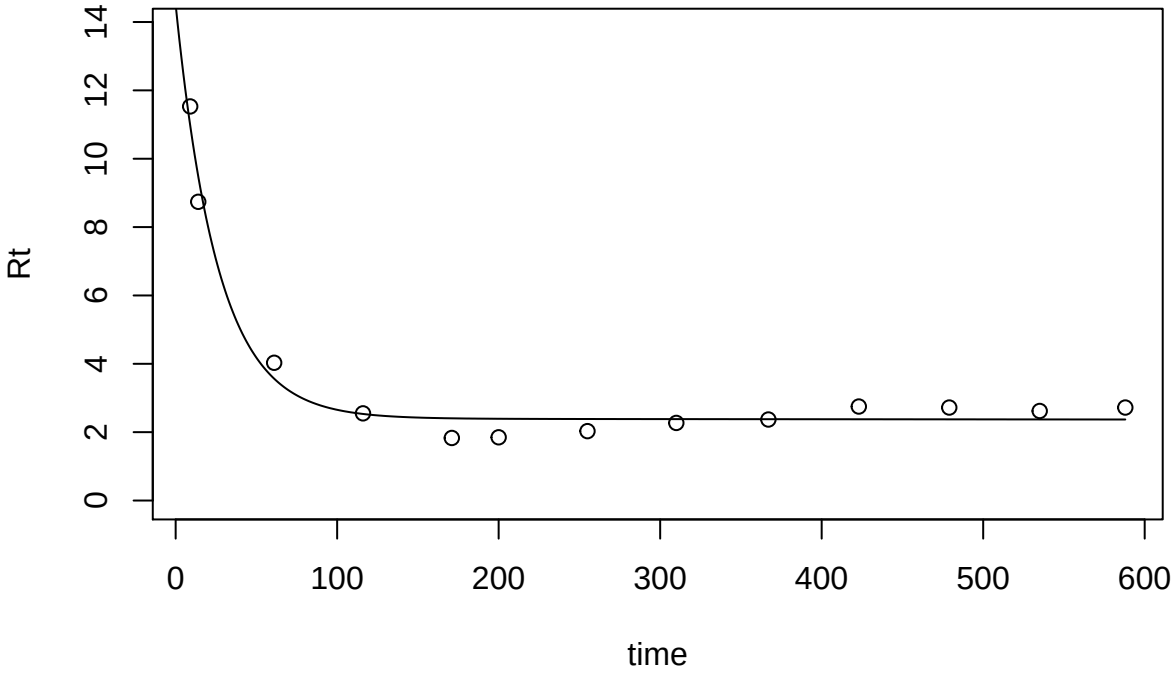
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	7.005513	0.0338169	4.03e-05	0.0036490	NA	NA
Two-pool feedback	11.005513	0.0338169	4.03e-05	0.0063527	0.4250872	2.33e-05

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	9.005513	0.0338170	4.03e-05	0.0116348	0.6855503	NA

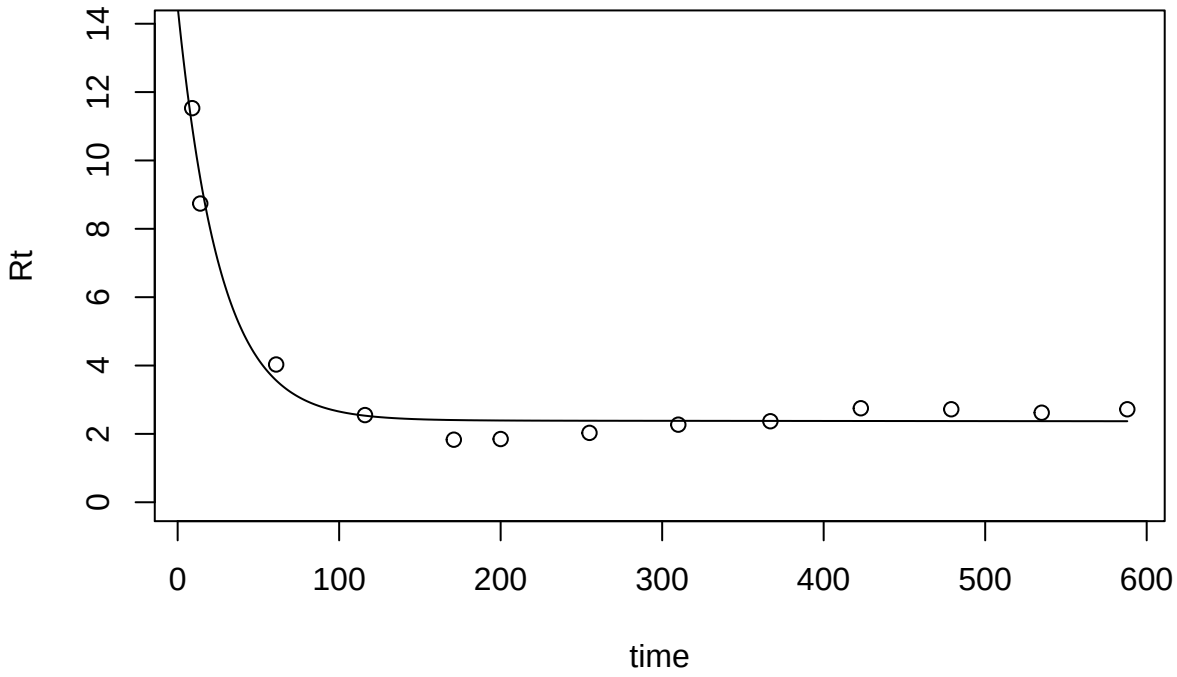
Variable C_BrazilPas_15:

Decomposition rates over time at 15 degrees for Brazil, Pasture

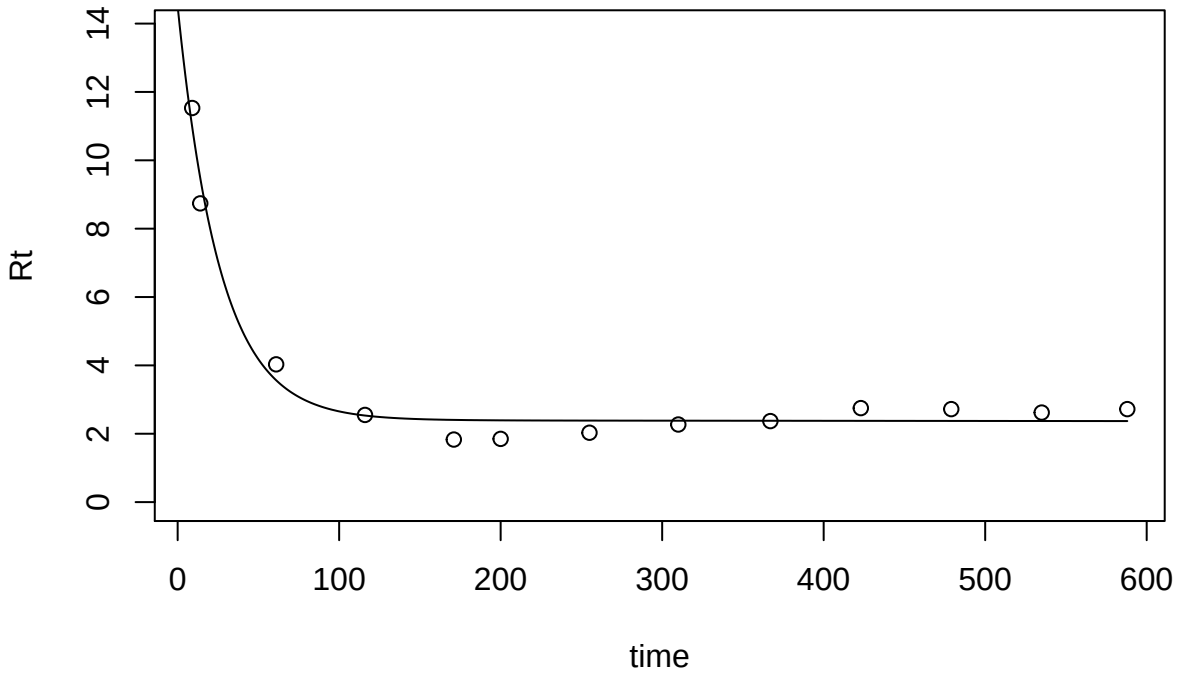
```
## [1] "k1= 0.0382776747781642"
## [2] "k2= 1.70201908686776e-05"
## [3] "proportion of C0 in pool 1= 0.00224433443437916"
```



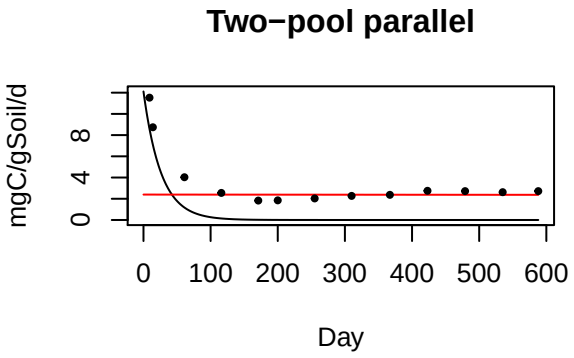

```
## [1] "AIC =  9.4855165670833"
## [1] "k1= 0.0382560993308819"
## [2] "k2= 3.8844735986386e-05"
## [3] "a21= 0.561800961643368"
## [4] "a12= 0.999624674408565"
## [5] "Proportion of C0 in pool 1= 0.00613677982629557"
```

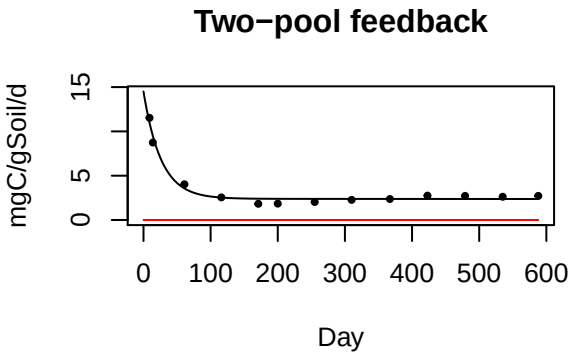


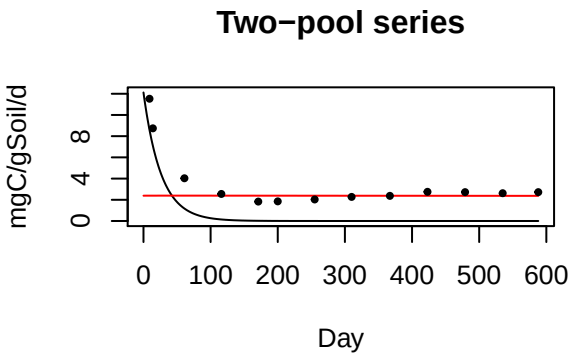

```
## [1] "AIC =  13.4855165757357"
## [1] "k1= 0.0382783532580412"
## [2] "k2= 1.70202234483998e-05"
## [3] "a21= 0.581989271823223"
## [4] "Proportion of C0 in pool 1= 0.00537239058790889"
```




```
## [1] "AIC =  11.4855165617719"
```





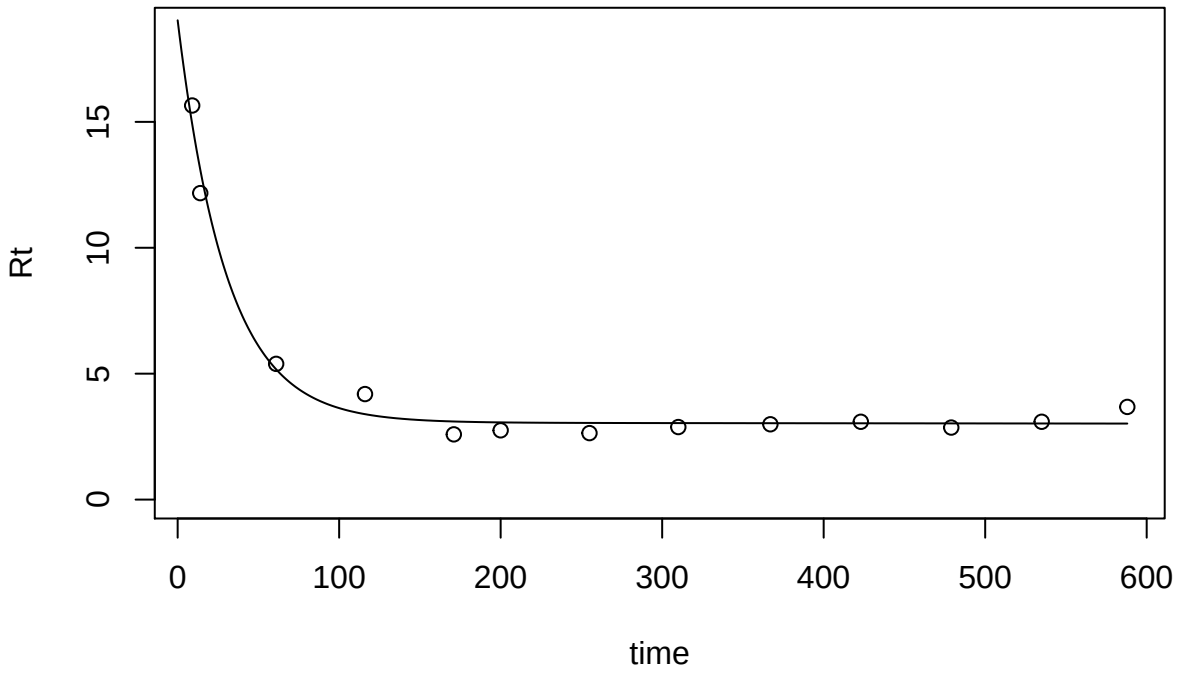


model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	9.485517	0.0382777	1.70e-05	0.0022443	NA	NA
Two-pool feedback	13.485517	0.0382561	3.88e-05	0.0061368	0.5618010	0.9996247
Two-pool series	11.485517	0.0382784	1.70e-05	0.0053724	0.5819893	NA

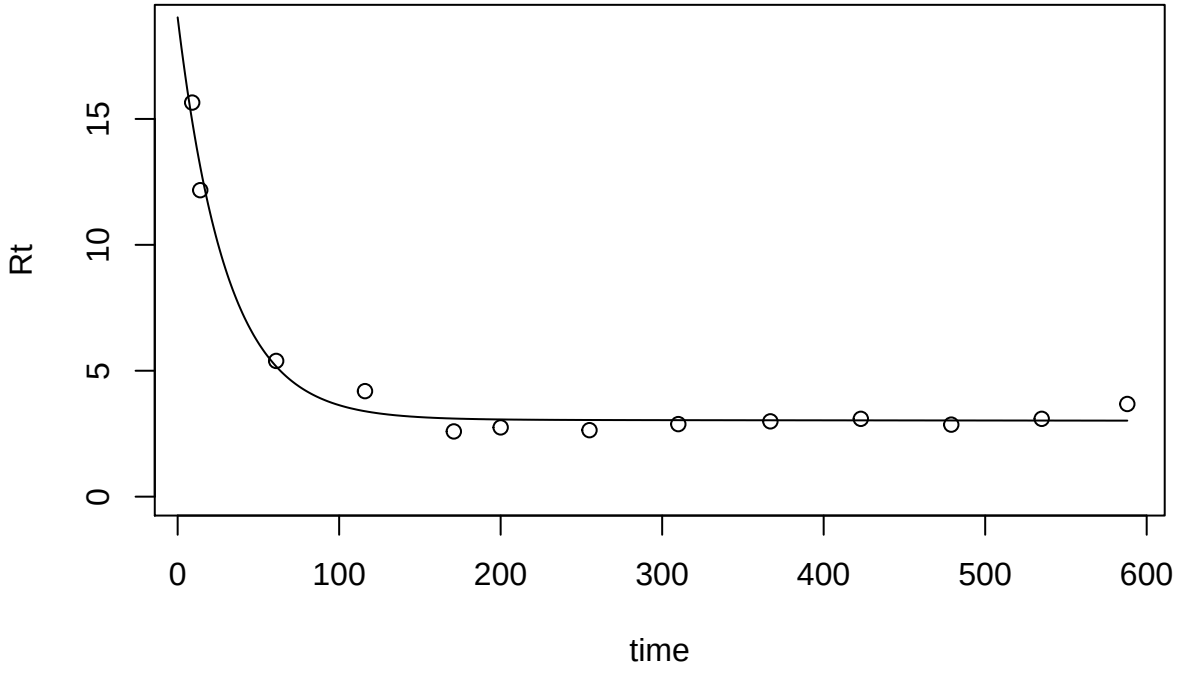
Variable C_BrazilPas_25:

Decomposition rates over time at 25 degrees for Brazil, Pasture

```
## [1] "k1= 0.0331237627489815"
## [2] "k2= 2.1758580521655e-05"
## [3] "proportion of C0 in pool 1= 0.00342064845605278"
```

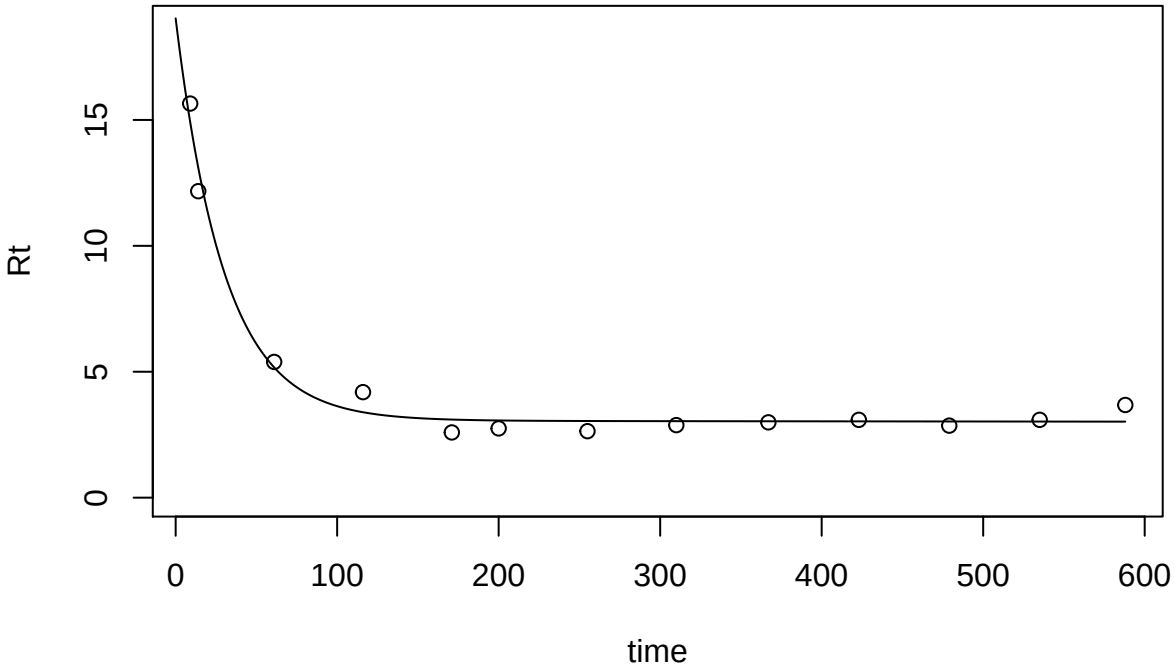



```
## [1] "AIC =  8.8540183445108"
## [1] "k1= 0.0331238363591506"
## [2] "k2= 2.17599917794624e-05"
## [3] "a21= 0.551696211842532"
## [4] "a12= 0.000116890827688509"
## [5] "Proportion of C0 in pool 1= 0.0076364500267902"
```

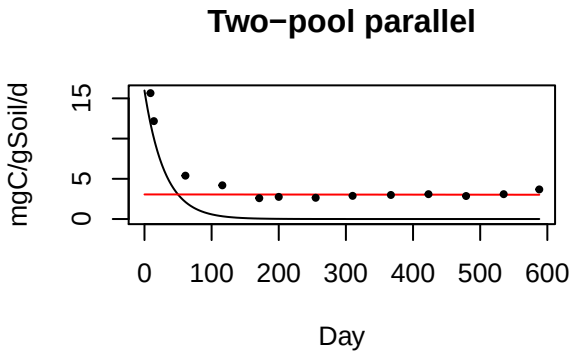


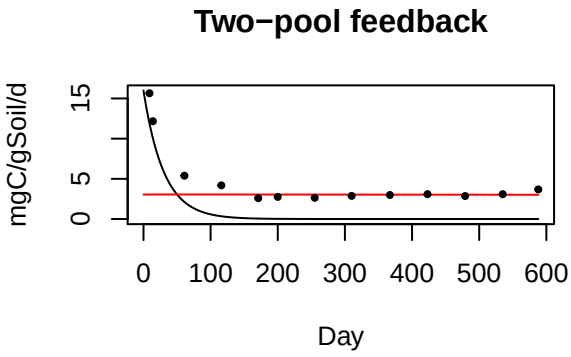

```
## [1] "AIC =  12.8540183444739"
## [1] "k1= 0.0331236204323933"
## [2] "k2= 2.17585672745402e-05"
## [3] "a21= 0.634433819649379"
```

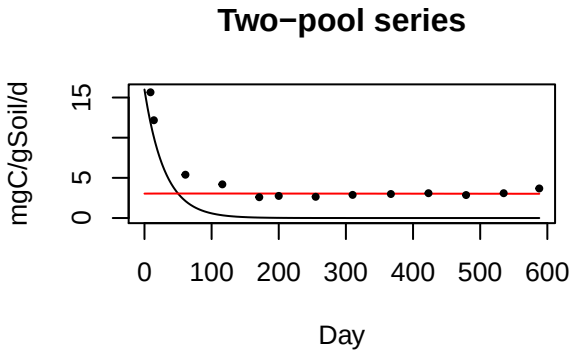
```
## [4] "Proportion of C0 in pool 1= 0.00936784761666531"
```




```
## [1] "AIC =  10.854018343871"
```







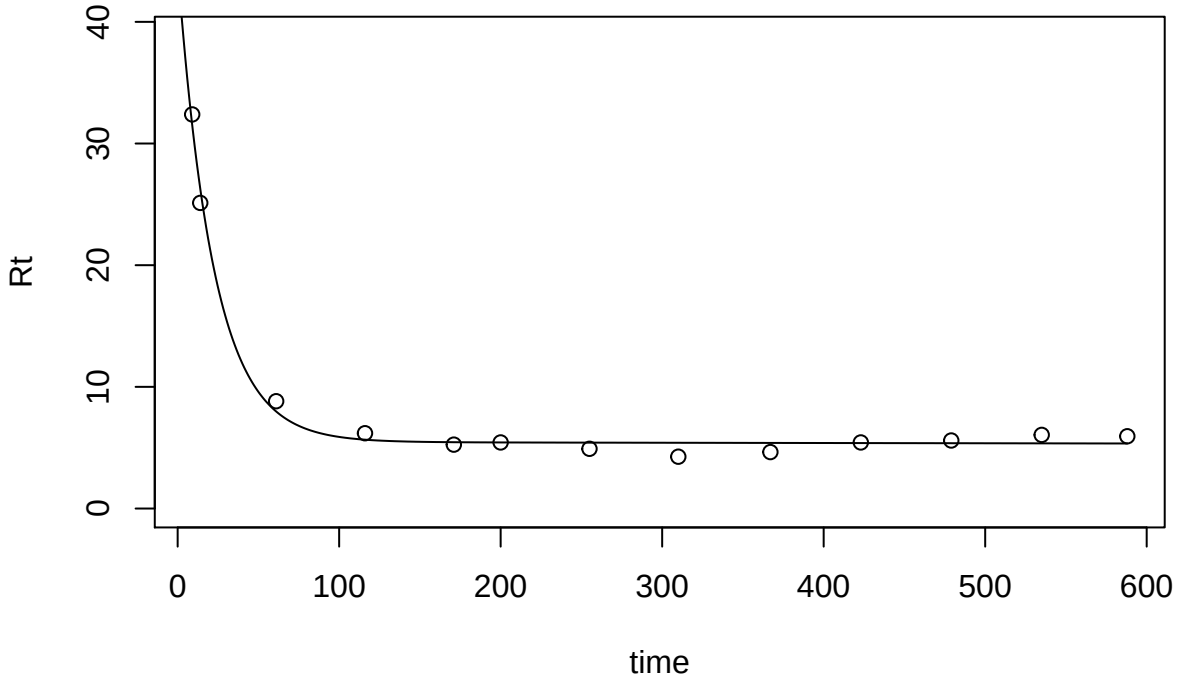
model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	8.854018	0.0331238	2.18e-05	0.0034206	NA	NA
Two-pool feedback	12.854018	0.0331238	2.18e-05	0.0076365	0.5516962	0.0001169

model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool series	10.854018	0.0331236	2.18e-05	0.0093678	0.6344338	NA

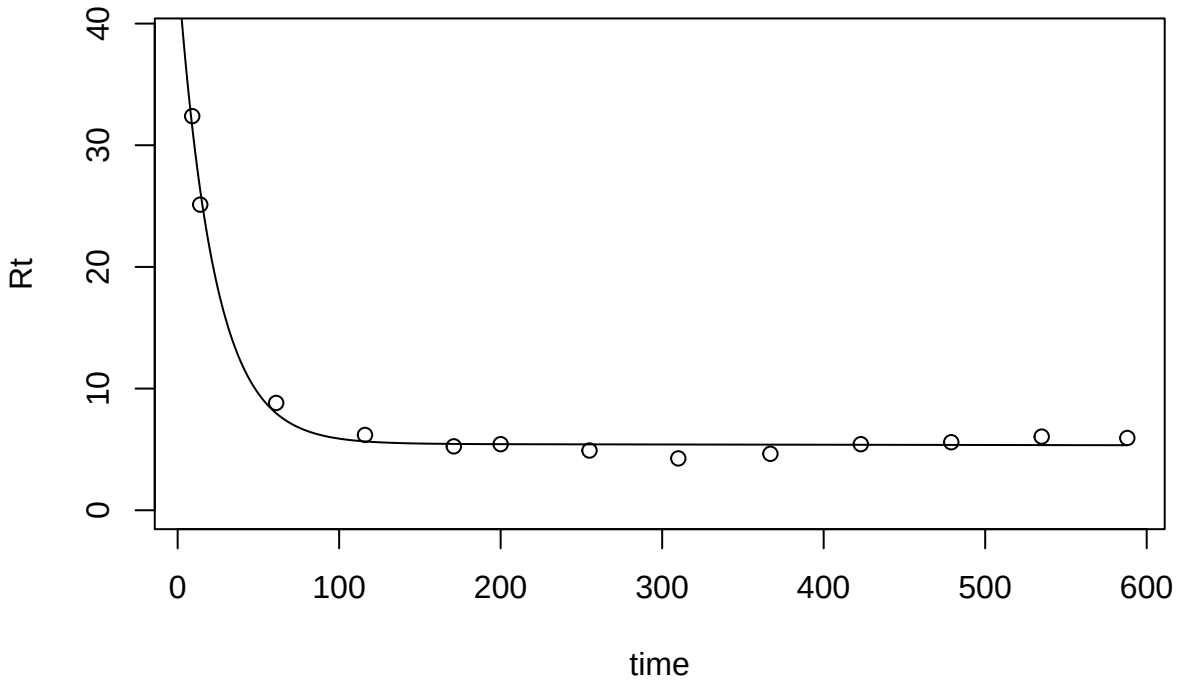
Variable C_BrazilPas_35:

Decomposition rates over time at 35 degrees for Brazil, Pasture

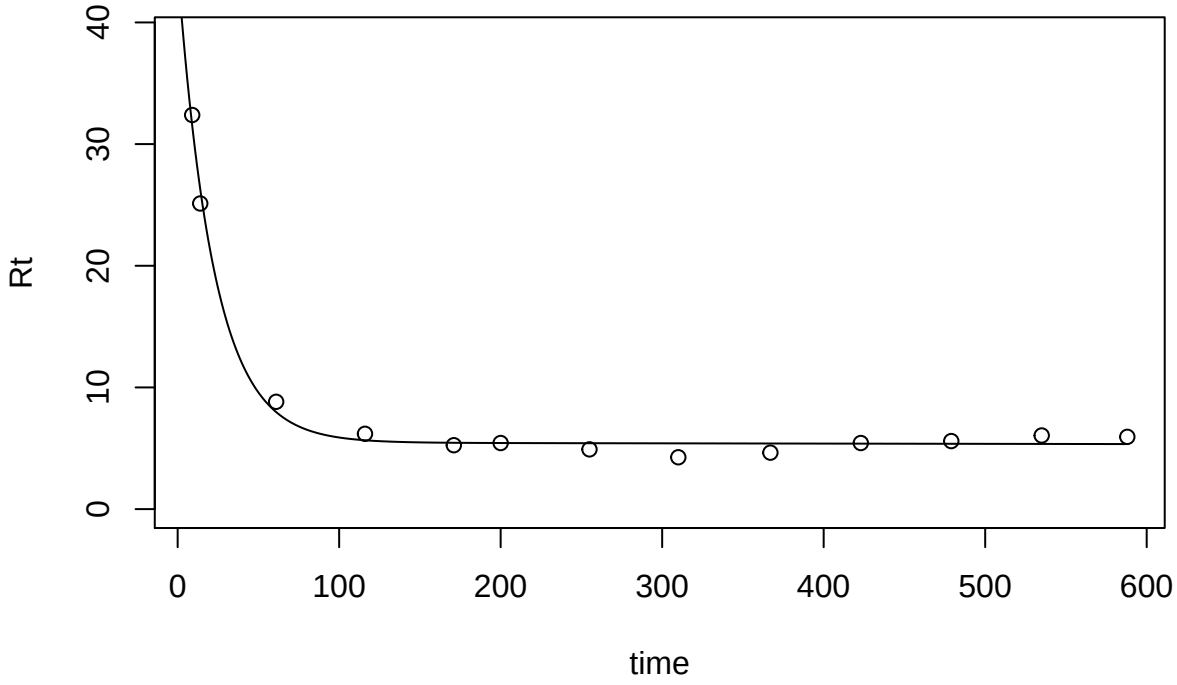
```
## [1] "k1= 0.0449323195353914"
## [2] "k2= 3.90301289144679e-05"
## [3] "proportion of C0 in pool 1= 0.00616466997935855"
```



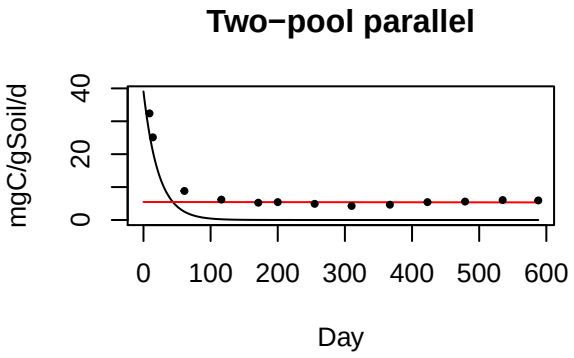

```
## [1] "AIC =  7.50036715217381"
## [1] "k1= 3.90301406117509e-05"
## [2] "k2= 0.0449324127087939"
## [3] "a21= 0.999993940743326"
## [4] "a12= 6.21508712828067e-08"
## [5] "Proportion of C0 in pool 1= 0.992972055928731"
```

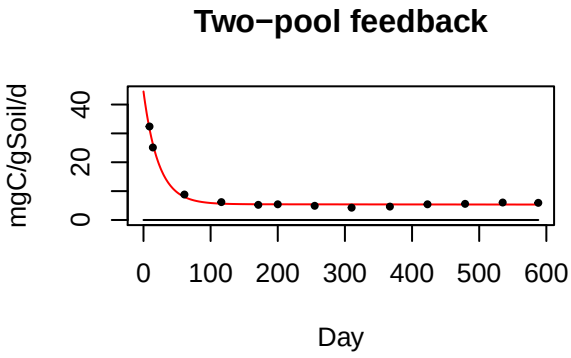


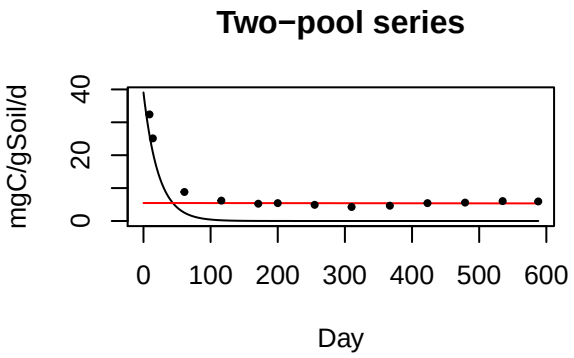

```
## [1] "AIC =  11.500367182079"
## [1] "k1= 0.0449325541112205"
## [2] "k2= 3.90301527379267e-05"
## [3] "a21= 0.207187552719532"
## [4] "Proportion of C0 in pool 1= 0.00777744268385744"
```




```
## [1] "AIC =  9.50036715261415"
```







model	AIC	k1	k2	Proportion.of.C0.in.pool.1	a21	a12
Two-pool parallel	7.500367	0.0449323	0.0000390	0.0061647	NA	NA
Two-pool feedback	11.500367	0.0000390	0.0449324	0.9929721	0.9999939	1e-07
Two-pool series	9.500367	0.0449326	0.0000390	0.0077774	0.2071876	NA