Présentation de l'application de colSBM sur Doré et al. 2020

Clustering avec le modèle iid

Avec le modèle *iid* nous obtenons les 5 collections et les structures suivantes:

Pour la collection 1

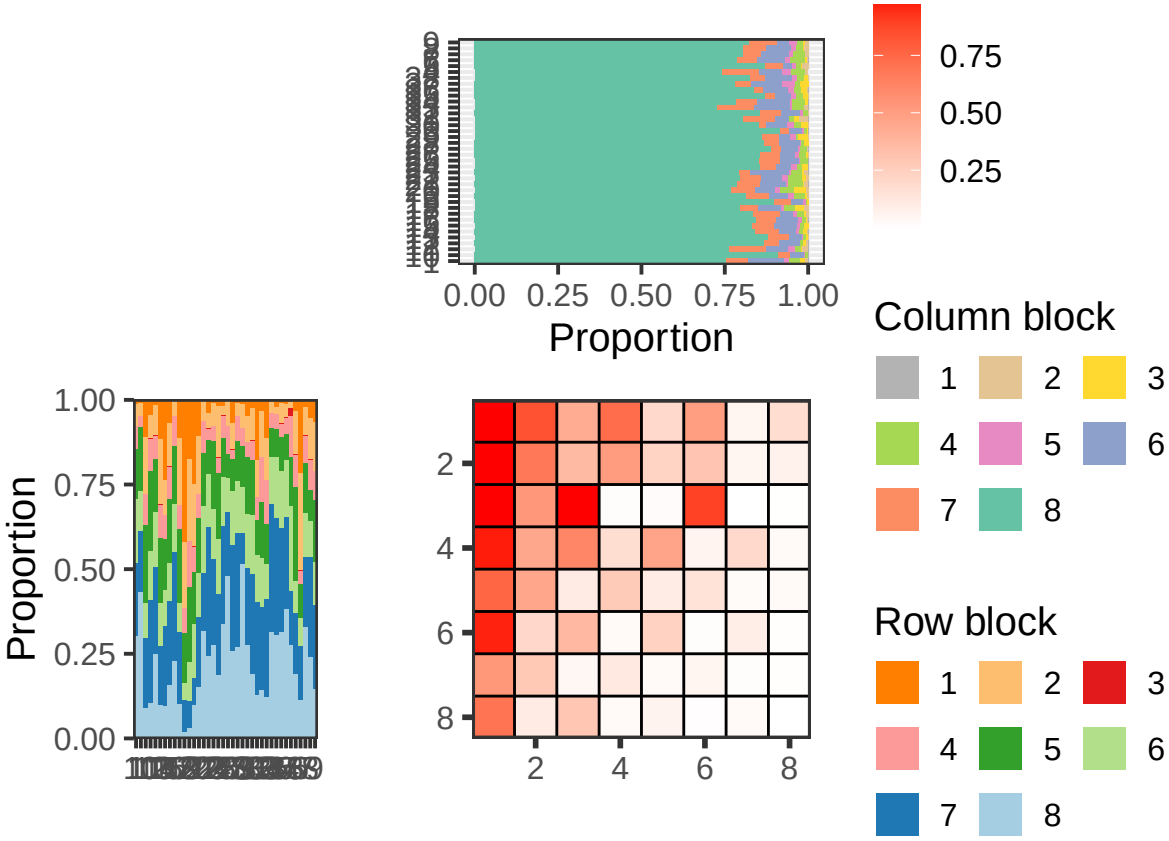


Figure 1: Collection 1 - iid

Networks
arroyo1982_1+arroyo1982_2+arroyo3
eberling1999
kato1990
petanidou1991
Junker2013
bartomeus2008
Benadi2013_1(950m)+Benadi2013_2(1170m)+Benadi2013_6(2020m)
Benadi2013_4(1700m)+Benadi2013_5(1800m)
Struck1994
Kato2000
Albrecht2010_49yr+Albrecht2010_63yr+Albrecht2010_84yr+Albrecht2010_109yr+Albrecht2010_130yr
Baldock2011_TB+Baldock2011_JN
Dattilo2016
Devoto2005_PP+Devoto2005_AP
Devoto2005_VT
Devoto2005_LL+Devoto2005_CT
Freitas2006
Gibson2006_TA2
Jedrzejewska2013_Ochata+Jedrzejewska2013_Kabaty
MonteroCastano2017_Albufera+MonteroCastano2017_Llimpa+MonteroCastano2017_Tirant
Kehinde2014_Joostenberg_Conv+Kehinde2014_Joostenberg_Org+Kehinde2014_Joostenberg_Nat+Kehinde2014_Laiba
Pinheiro2008
Watts2016_Chicon+Watts2016_Mantanay+Watts2016_Choquebamba+Watts2016_Huaran+Watts2016_Piscacucho+Wa
Kato1993
KatoMiura1996
Kakutani1990
Inoue1990
Fragoso_RA2+Fragoso_RA3+Fragoso_RD1+Fragoso_RD3
Souza_cerrado
Souza_chaco
Souza_pantanal
Souza_vereda
Adedoja2019
Oleques2019
Baldock2019_Bristol
Baldock2019_Edinburgh
Baldock2019_Leeds
Baldock2019_Reading

Pour la collection 2

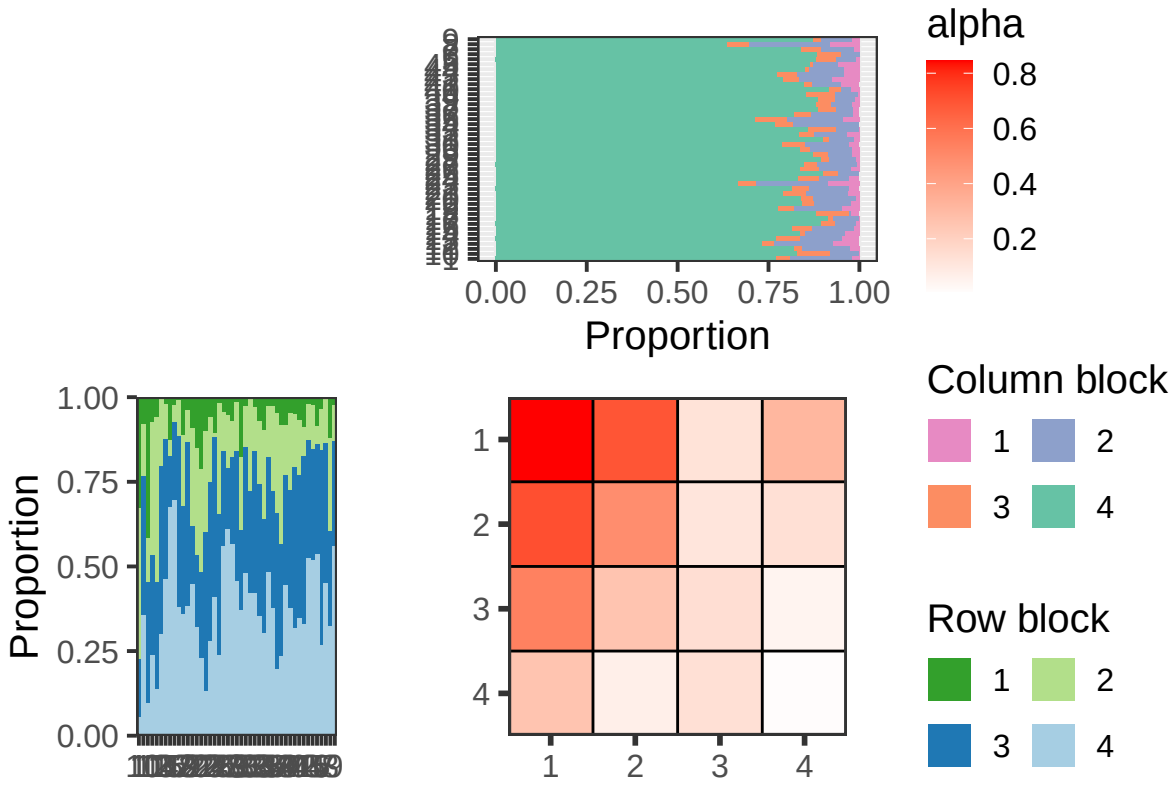


Figure 2: Collection 2 - iid

Networks
dupont2003
herrera1988
inouye1988
medan2002ld
medan2002rb
ramirez1992
ramirez1989
Burkle2013
Olito-Fox2014
Benadi2013_3(1340m)
Aizen2008_Challhuaco_U+Aizen2008_Challhuaco_D
Aizen2008_Cerro Otto_U+Aizen2008_Cerro Otto_D
Aizen2008_Llao-llao_U+Aizen2008_Llao-llao_D
Chamberlain_cr1+Chamberlain_cr2+Chamberlain_fs1+Chamberlain_fs2+Chamberlain_go1+Chamberlain_go2+Chaml
Chamberlain_HLU+Chamberlain_HLG+Chamberlain_OKU+Chamberlain_OKG+Chamberlain_WLU+Chamberlain_
Devoto2005_LQ
Devoto2005_LT+Devoto2005_LH
LemusJimenez2003
Lundgren2005
Marrero2013
Trojelsgaard2015_La Gomera
Trojelsgaard2015_Gran Canaria
Zackenberg
Yoshihara2008
Fragoso_RA1+Fragoso_RD2
PopicThesis
Pornon2017
Orford_B1+Orford_B2+Orford_B3+Orford_B4+Orford_B5+Orford_B10
Orford_B6+Orford_B7+Orford_B8+Orford_B9
Blumel2016
Kantsa2018

Pour la collection 3

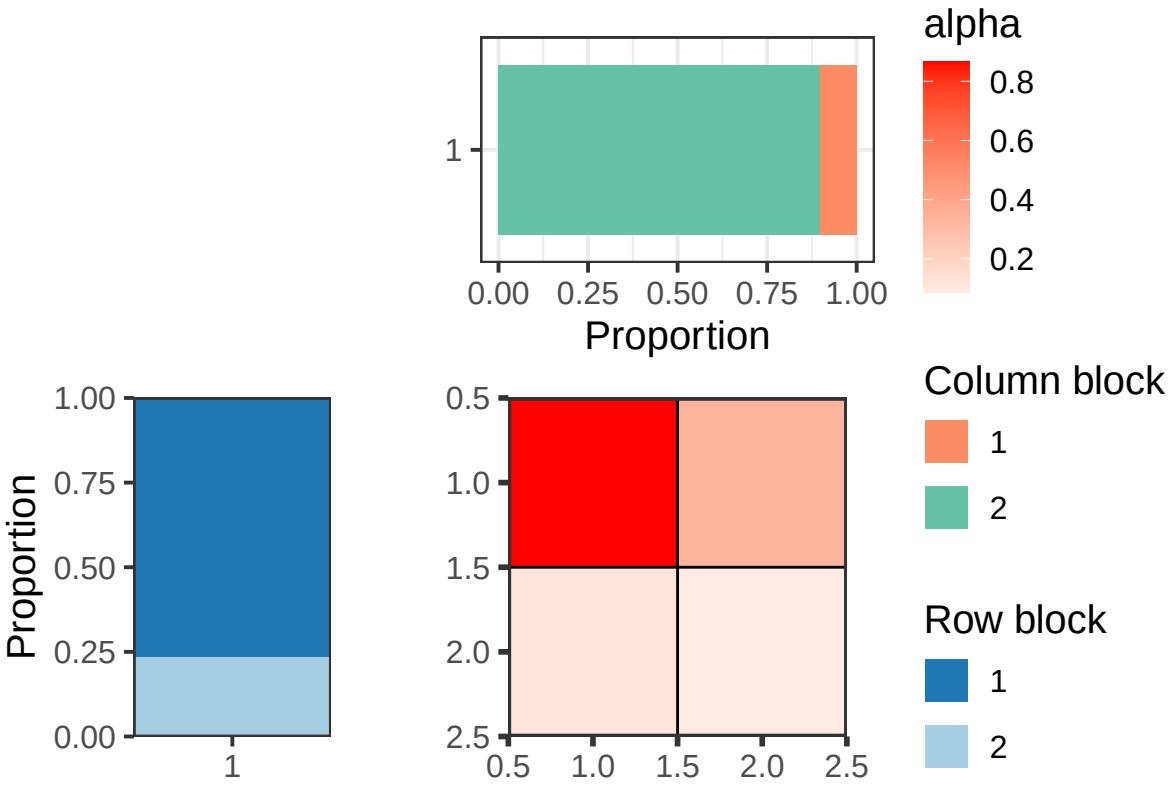


Figure 3: Collection 3 - iid

Networks
small1976

Pour la collection 4

Networks
smith-ramirez2005
Weiner2011
Kaiser_control+Kaiser_restored
Gilarranz2014_amarante+Gilarranz2014_barrosa+Gilarranz2014_cincocerros+Gilarranz2014_difuntito+Gilarranz2014_c
Kaiser-Bunbury2017_Bernica+Kaiser-Bunbury2017_Casse-dent+Kaiser-Bunbury2017_Copolia+Kaiser-Bunbury2017_La
Fang2012
Aizen2008_Puerto Blest_U+Aizen2008_Puerto Blest_D
Chamberlain_Site1+Chamberlain_Site2+Chamberlain_Site3+Chamberlain_Site4+Chamberlain_Site5+Chamberlain_Si
Dupont2009_IsenBjerg+Dupont2009_Other
Gibson2006_GA1
Gibson2006_TA1
LaraRomero2016_pe?alara_EP+LaraRomero2016_pe?alara_PA+LaraRomero2016_nevero_EP+LaraRomero2016_neve
Trojelsgaard2015_Tenerife Teno Bajo+Trojelsgaard2015_Tenerife Fasnia
Vanbergen2013_balfarm+Vanbergen2013_bridgend+Vanbergen2013_dalhaikie+Vanbergen2013_netherton+Vanbergen20
Pfeiffer_CNE+Pfeiffer_CNM+Pfeiffer_CNT+Pfeiffer_CPB+Pfeiffer_CPM+Pfeiffer_CPR+Pfeiffer_CPS+Pfeiffer_M2+
Carstensen_Gigante+Carstensen_Paulino+Carstensen_Tinkerbell+Carstensen_Midway+Carstensen_Cedro+Carstensen
Welti_ID+Welti_K1B+Welti_K4A+Welti_4B+Welti_20B+Welti_20C+Welti_N1A+Welti_N1B+Welti_N4A+Welti_
Grass2013_1+Grass2013_2+Grass2013_3+Grass2013_4+Grass2013_5+Grass2013_6+Grass2013_7+Grass2013_8+Gra
Hackett2019_UK_sand_dune+Hackett2019_UK_grassland+Hackett2019_UK_heathland+Hackett2019_UK_woodland+
Neli2014

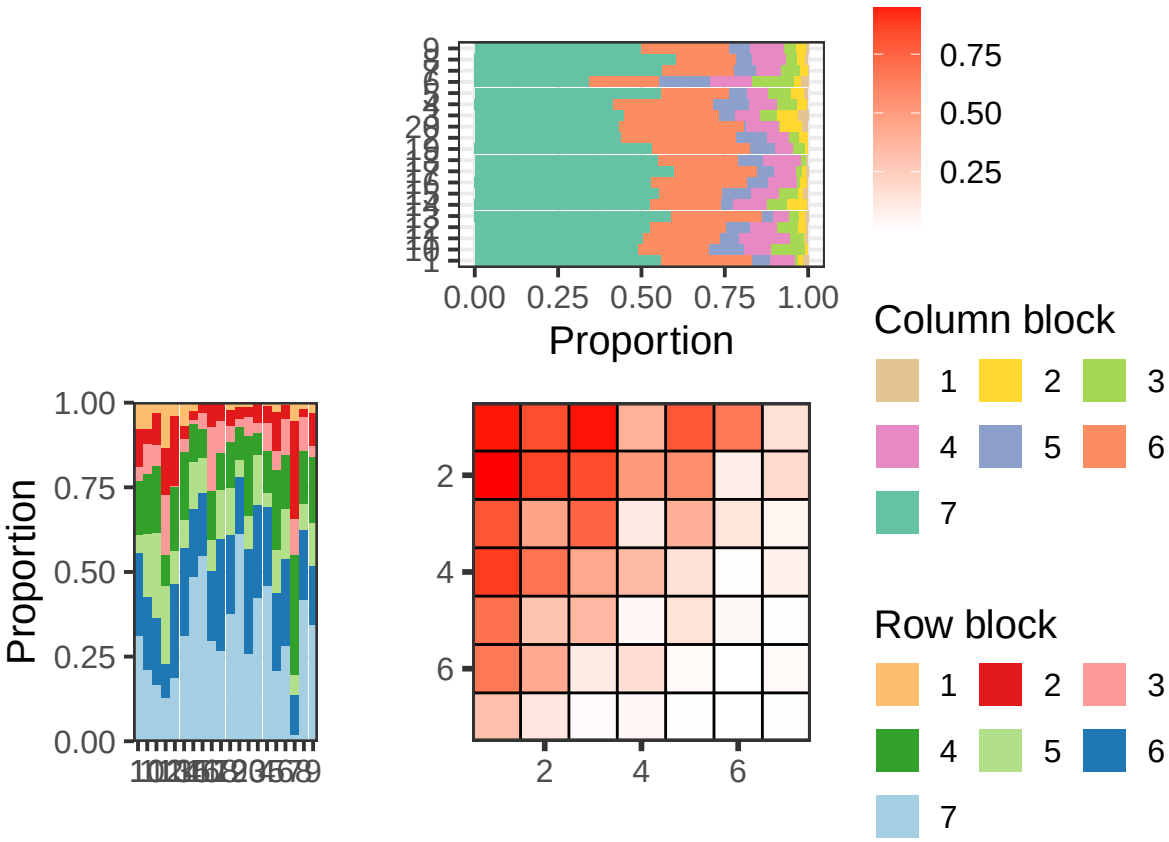


Figure 4: Collection 4 - iid

Pour la collection 5

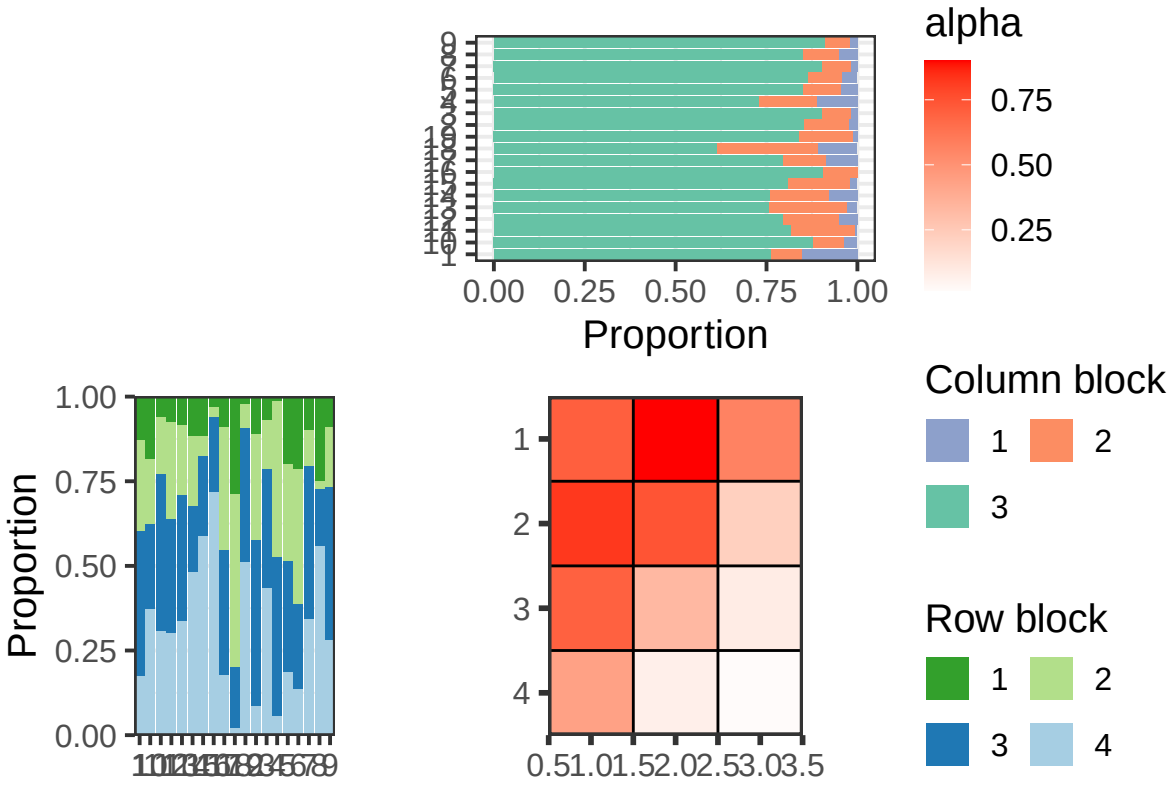


Figure 5: Collection 5 - iid

Networks
olensen2002aig
olensen2002flo
vazquez2002
Shay2016
Gibson2006_GA2
Gibson2006_SG
Trojelsgaard2015_El Hierro
Trojelsgaard2015_Fuerteventura
Trojelsgaard2015_Western Sahara
Robinson2018
CordenizPicanco2018_NatFor
CordenizPicanco2018_SemiPast
CordenizPicanco2018_IntPast
Biella2019
Nel2017
Villalobos2019
LaraRomero2019_blanca+LaraRomero2019_rajada+LaraRomero2019_refugio+LaraRomero2019_torre
Ferrero2013
Sritongchuay2019_near+Sritongchuay2019_far

Et voici donc les valeurs numériques pour les α (paramètres de connectivité).

Pour la collection 1 :

$$\begin{bmatrix} 1 & 0.83 & 0.43 & 0.73 & 0.2 & 0.5 & 0.05 & 0.18 \\ 1 & 0.67 & 0.36 & 0.51 & 0.22 & 0.3 & 0.05 & 0.07 \\ 1 & 0.53 & 1 & 0.01 & 0.02 & 0.89 & 0 & 0 \\ 0.97 & 0.45 & 0.62 & 0.18 & 0.47 & 0.06 & 0.2 & 0.03 \\ 0.76 & 0.46 & 0.1 & 0.27 & 0.1 & 0.14 & 0.02 & 0.03 \\ 0.96 & 0.2 & 0.37 & 0.03 & 0.24 & 0.01 & 0.09 & 0.01 \\ 0.54 & 0.28 & 0.04 & 0.12 & 0.03 & 0.05 & 0.01 & 0.01 \\ 0.69 & 0.1 & 0.3 & 0.02 & 0.06 & 0.01 & 0.03 & 0 \end{bmatrix}$$

Pour la collection 2 :

$$\begin{bmatrix} 0.84 & 0.69 & 0.13 & 0.32 \\ 0.71 & 0.49 & 0.11 & 0.14 \\ 0.54 & 0.26 & 0.14 & 0.05 \\ 0.26 & 0.07 & 0.14 & 0.01 \end{bmatrix}$$

Pour la collection 3 :

$$\begin{bmatrix} 0.87 & 0.33 \\ 0.11 & 0.09 \end{bmatrix}$$

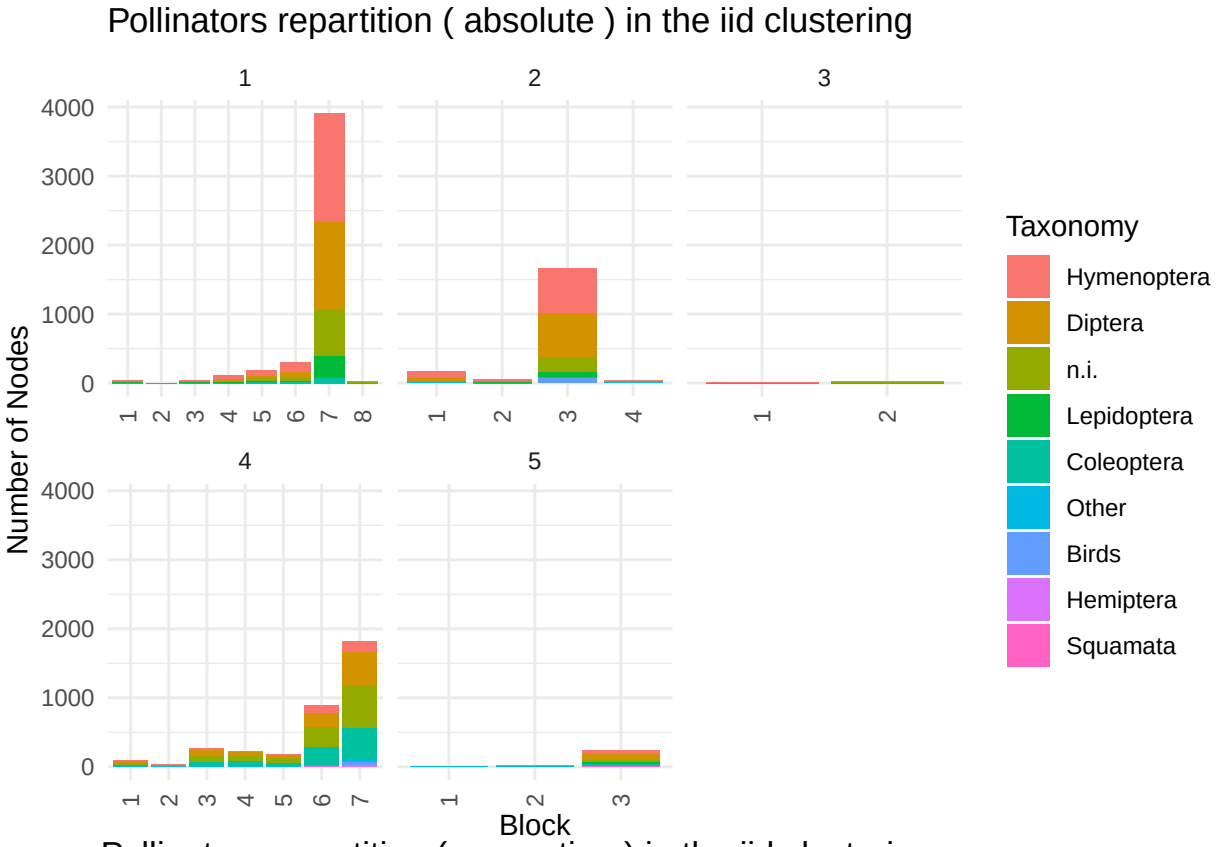
Pour la collection 4 :

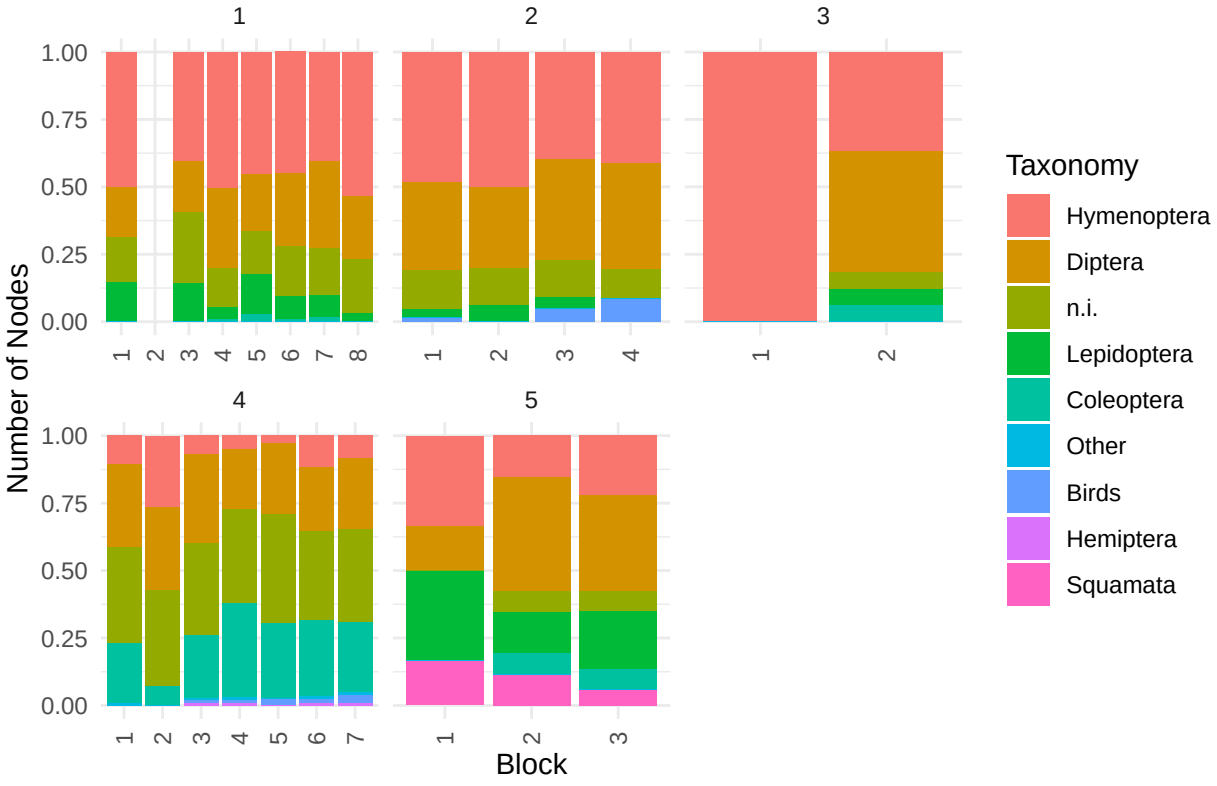
$$\begin{bmatrix} 0.96 & 0.83 & 0.96 & 0.39 & 0.8 & 0.16 & 0.66 \\ 0.98 & 0.86 & 0.83 & 0.51 & 0.56 & 0.19 & 0.09 \\ 0.8 & 0.46 & 0.74 & 0.12 & 0.4 & 0.05 & 0.13 \\ 0.89 & 0.69 & 0.44 & 0.35 & 0.15 & 0.07 & 0.01 \\ 0.7 & 0.29 & 0.35 & 0.03 & 0.15 & 0.01 & 0.03 \\ 0.66 & 0.43 & 0.1 & 0.17 & 0.03 & 0.02 & 0 \\ 0.32 & 0.12 & 0.02 & 0.04 & 0 & 0 & 0 \end{bmatrix}$$

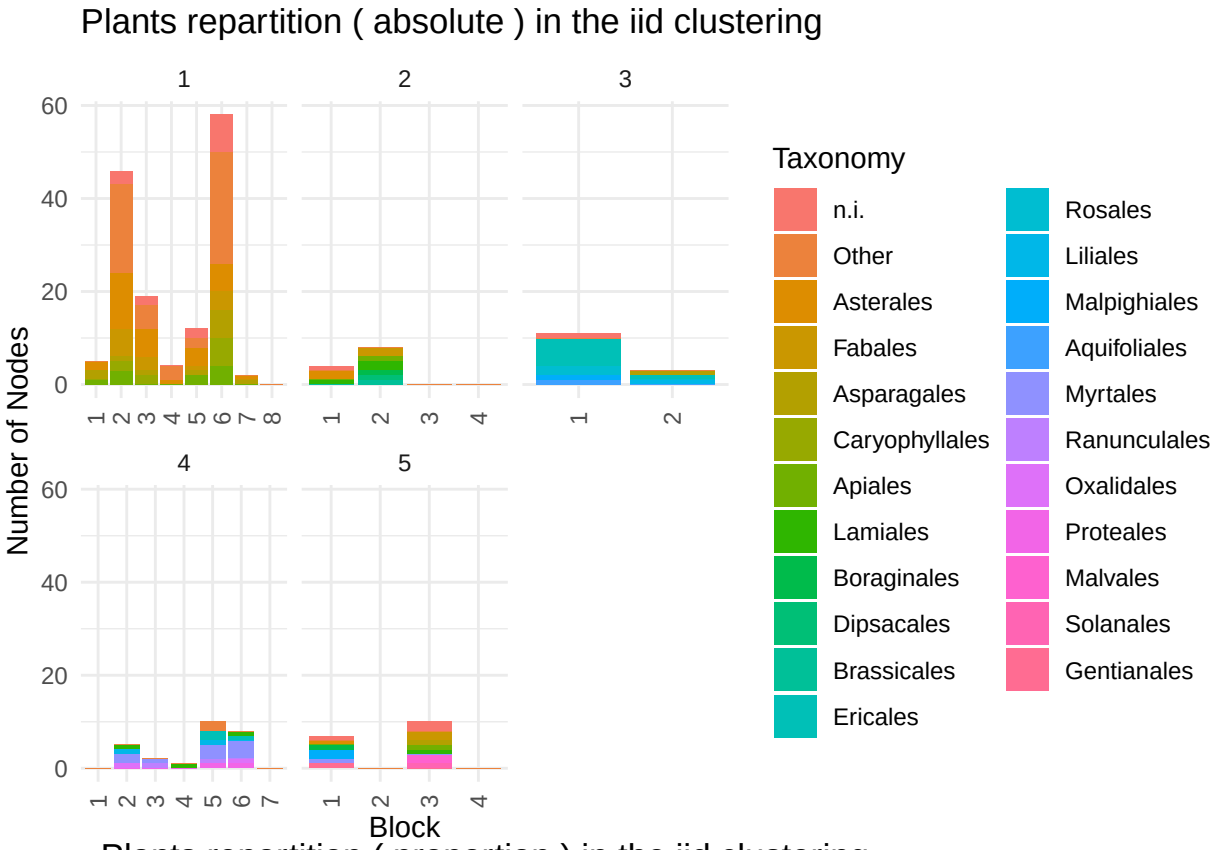
Pour la collection 5 :

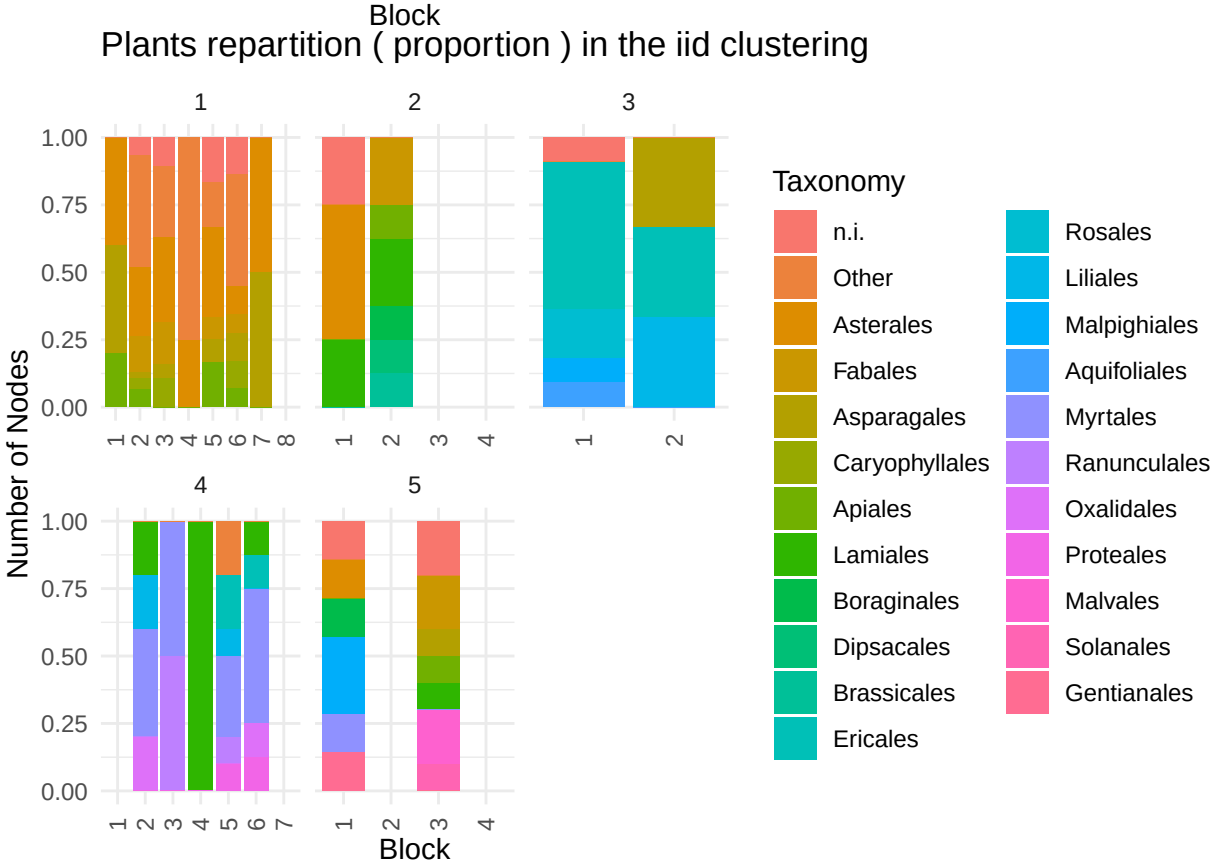
$$\begin{bmatrix} 0.71 & 0.9 & 0.57 & 0.83 \\ 0.74 & 0.22 & 0.7 & 0.33 \\ 0.09 & 0.44 & 0.07 & 0.02 \end{bmatrix}$$

Répartition dans les clusters selon la taxonomie






Plants repartition (absolute) in the iid clustering
Number of Nodes
Block
Taxonomy
n.i.
Other
Asterales
Fabales
Asparagales
Caryophyllales
Apiales
Lamiales
Boraginales
Dipsacales
Brassicales
Ericales
Rosales
Liliales
Malpighiales
Aquifoliales
Myrtales
Ranunculales
Oxalidales
Proteales
Malvales
Solanales
Gentianales


Plants repartition (proportion) in the iid clustering
Number of Nodes
Block
Taxonomy
n.i.
Other
Asterales
Fabales
Asparagales
Caryophyllales
Apiales
Lamiales
Boraginales
Dipsacales
Brassicales
Ericales
Rosales
Liliales
Malpighiales
Aquifoliales
Myrtales
Ranunculales
Oxalidales
Proteales
Malvales
Solanales
Gentianales

Clustering avec le modèle pi

Avec le modèle *pi* nous obtenons les 2 collections et les structures suivantes:

Pour la collection 1

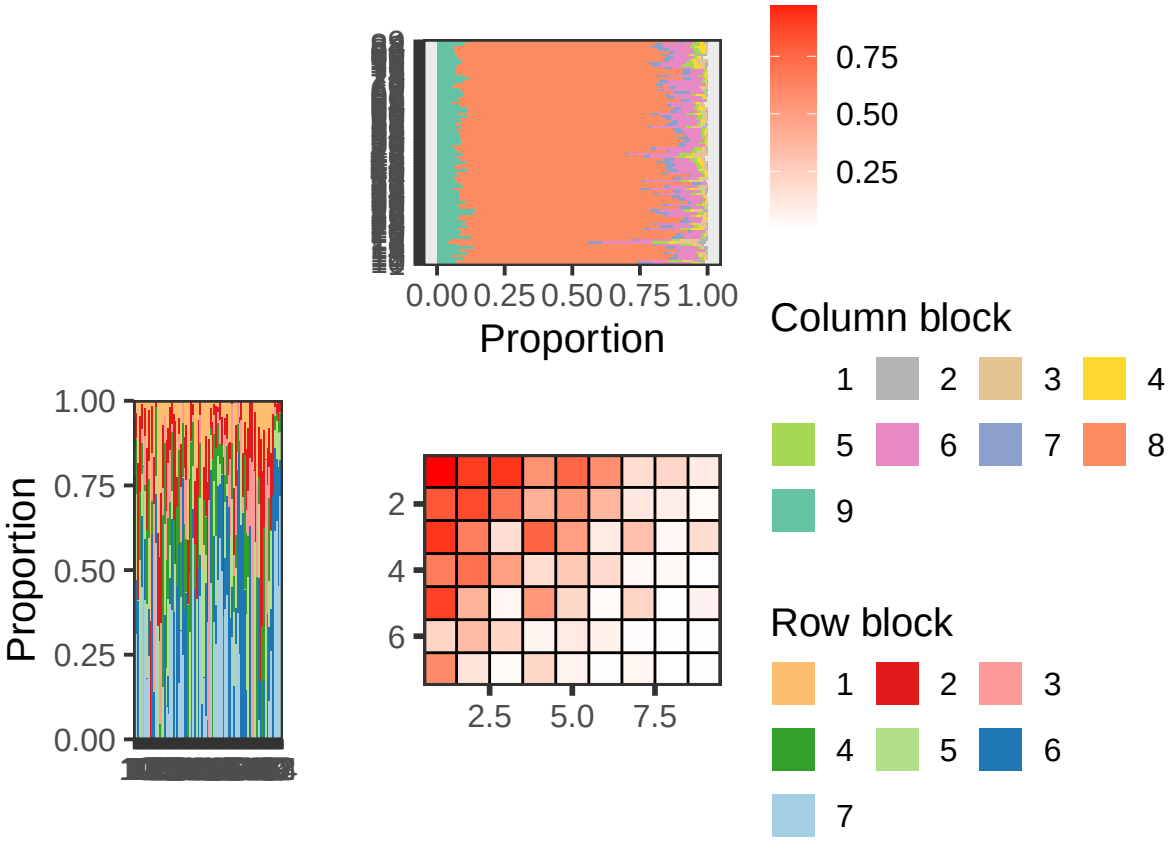


Figure 6: Collection 1 - pi

Networks
arroyo1982_1+arroyo1982_2+arroyo3
eberling1999
inouye1988
kato1990
ramirez1992
petanidou1991
ramirez1989
smith-ramirez2005
Junker2013
Kaiser_control+Kaiser_restored
bartomeus2008
Olito-Fox2014
Benadi2013_1(950m)+Benadi2013_2(1170m)+Benadi2013_6(2020m)
Benadi2013_3(1340m)
Benadi2013_4(1700m)+Benadi2013_5(1800m)
Kaiser-Bunbury2017_Bernica+Kaiser-Bunbury2017_Casse-dent+Kaiser-Bunbury2017_Copolia+Kaiser-Bunbury2017_La
Fang2012
Shay2016
Struck1994
Kato2000
Aizen2008_Cerro Otto_U+Aizen2008_Cerro Otto_D
Aizen2008_Llao-llao_U+Aizen2008_Llao-llao_D
Aizen2008_Puerto Blest_U+Aizen2008_Puerto Blest_D
Albrecht2010_49yr+Albrecht2010_63yr+Albrecht2010_84yr+Albrecht2010_109yr+Albrecht2010_130yr
Baldock2011_TB+Baldock2011_JN
Chamberlain_cr1+Chamberlain_cr2+Chamberlain_fs1+Chamberlain_fs2+Chamberlain_go1+Chamberlain_go2+Chaml
Chamberlain_HLU+Chamberlain_HLG+Chamberlain_OKU+Chamberlain_OKG+Chamberlain_WLU+Chamberlain_
Chamberlain_Site1+Chamberlain_Site2+Chamberlain_Site3+Chamberlain_Site4+Chamberlain_Site5+Chamberlain_Si
Dattilo2016
Devoto2005_PP+Devoto2005_AP
Devoto2005_VT
Devoto2005_LL+Devoto2005_CT
Dupont2009_IsenBjerg+Dupont2009_Other
Freitas2006
Gibson2006_TA1
Gibson2006_TA2
Jedrzejewska2013_Ochata+Jedrzejewska2013_Kabaty
LaraRomero2016_pe?alara_EP+LaraRomero2016_pe?alara_PA+LaraRomero2016_nevero_EP+LaraRomero2016_neve
LemusJimenez2003
Marrero2013
MonteroCastano2017_Albufera+MonteroCastano2017_Llimpa+MonteroCastano2017_Tirant
Kehinde2014_Joostenberg_Conv+Kehinde2014_Joostenberg_Org+Kehinde2014_Joostenberg_Nat+Kehinde2014_Laiba
Pinheiro2008
Trojelsgaard2015_La Gomera
Trojelsgaard2015_Tenerife Teno Bajo+Trojelsgaard2015_Tenerife Fasnia
Vanbergen2013_balfarm+Vanbergen2013_bridgend+Vanbergen2013_dalhaikie+Vanbergen2013_netherton+Vanbergen20
Zackenberg
Yoshihara2008
Watts2016_Chicon+Watts2016_Mantanay+Watts2016_Choquebamba+Watts2016_Huaran+Watts2016_Piscacucho+Wa
Kato1993
KatoMiura1996
Kakutani1990
Inoue1990
Fragoso_RA2+Fragoso_RA3+Fragoso_RD1+Fragoso_RD3
PopicThesis
Pfeiffer_CNE+Pfeiffer_CNM+Pfeiffer_CNT+Pfeiffer_CPB+Pfeiffer_CPM+Pfeiffer_CPR+Pfeiffer_CPS+Pfeiffer_M2+
Carstensen_Gigante+Carstensen_Paulino+Carstensen_Tinkerbell+Carstensen_Midway+Carstensen_Cedro+Carstensen

Pour la collection 2

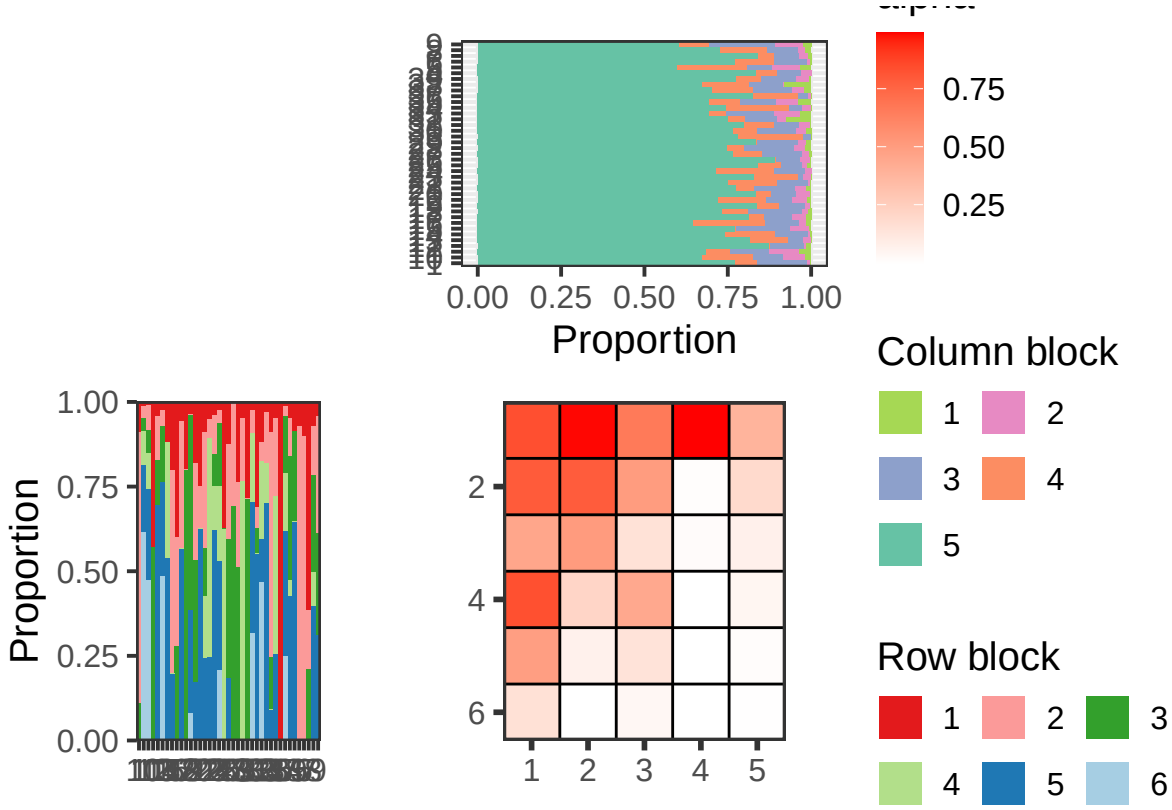


Figure 7: Collection 2 - pi

Networks
dupont2003
herrera1988
medan2002ld
medan2002rb
olensen2002aig
olensen2002flo
small1976
vazquez2002
Burkle2013
Weiner2011
Gilarranz2014_amarante+Gilarranz2014_barrosa+Gilarranz2014_cincocerros+Gilarranz2014_difuntito+Gilarranz2014_c
Aizen2008_Challhuaco_U+Aizen2008_Challhuaco_D
Devoto2005_LQ
Devoto2005_LT+Devoto2005_LH
Gibson2006_GA1
Gibson2006_GA2
Gibson2006_SG
Lundgren2005
Trojelsgaard2015_El Hierro
Trojelsgaard2015_Gran Canaria
Trojelsgaard2015_Fuerteventura
Trojelsgaard2015_Western Sahara
Fragoso_RA1+Fragoso_RD2
Pornon2017
Kantsa2018
Robinson2018
CordenizPicanco2018_NatFor
CordenizPicanco2018_ExoFor
CordenizPicanco2018_SemiPast
CordenizPicanco2018_IntPast
Hackett2019_UK_sand_dune+Hackett2019_UK_grassland+Hackett2019_UK_heathland+Hackett2019_UK_woodland-
Biella2019
Nel2017
Villalobos2019
LaraRomero2019_blanca+LaraRomero2019_rajada+LaraRomero2019_refugio+LaraRomero2019_torre
Traveset2013_Pinta
Ferrero2013
Neli2014
Sritongchuay2019_near+Sritongchuay2019_far

Et voici donc les valeurs numériques pour les α (paramètres de connectivité).

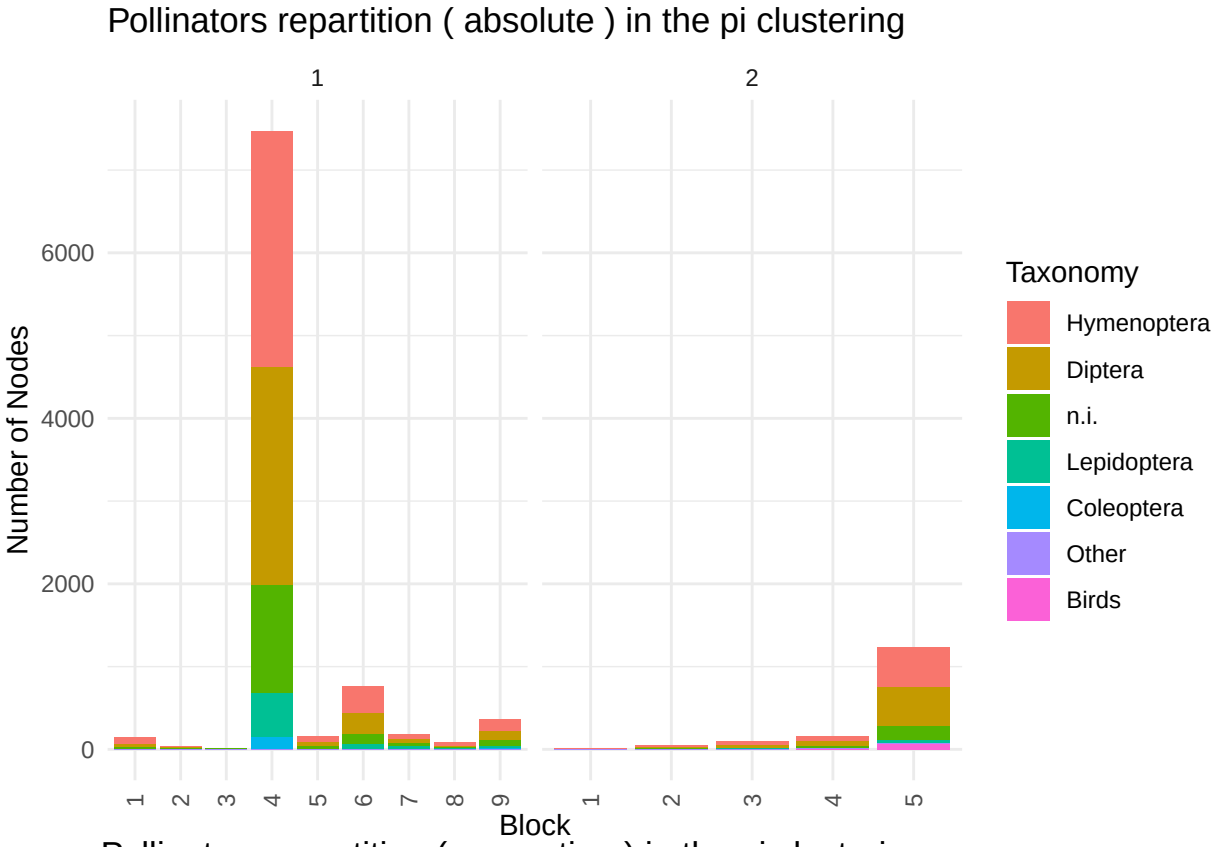
Pour la collection 1 :

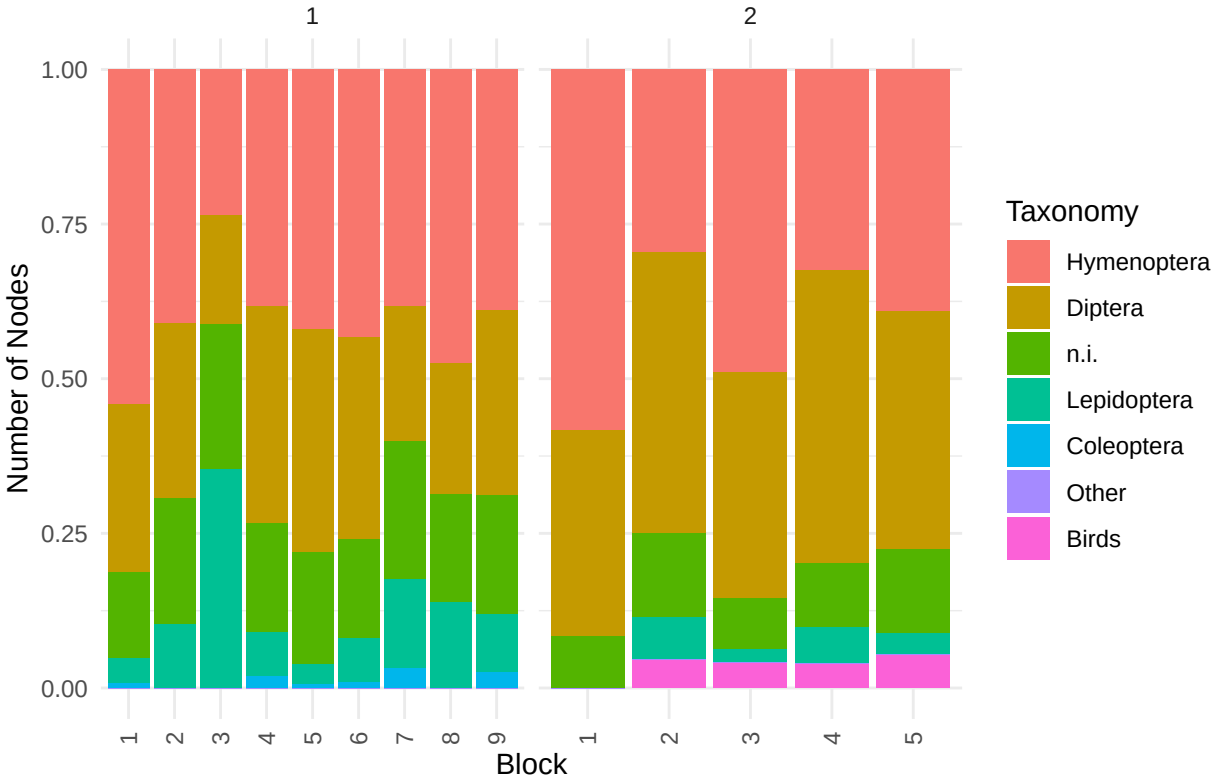
$$\begin{bmatrix} 1 & 0.9 & 0.92 & 0.55 & 0.75 & 0.57 & 0.17 \\ 0.1 & 0.21 & 0.81 & 0.86 & 0.7 & 0.4 & 0.54 \\ 0.38 & 0.12 & 0.03 & 0.09 & 0.92 & 0.65 & 0.17 \\ 0.76 & 0.5 & 0.1 & 0.33 & 0.17 & 0.04 & 0.65 \\ 0.71 & 0.5 & 0.18 & 0.28 & 0.19 & 0.04 & 0.01 \\ 0.03 & 0.89 & 0.4 & 0.05 & 0.53 & 0.2 & 0.03 \\ 0.22 & 0.07 & 0.01 & 0.22 & 0.35 & 0.21 & 0.06 \\ 0.11 & 0.07 & 0.01 & 0.01 & 0.01 & 0.6 & 0.15 \\ 0.02 & 0.21 & 0.06 & 0.01 & 0.06 & 0.01 & 0 \end{bmatrix}$$

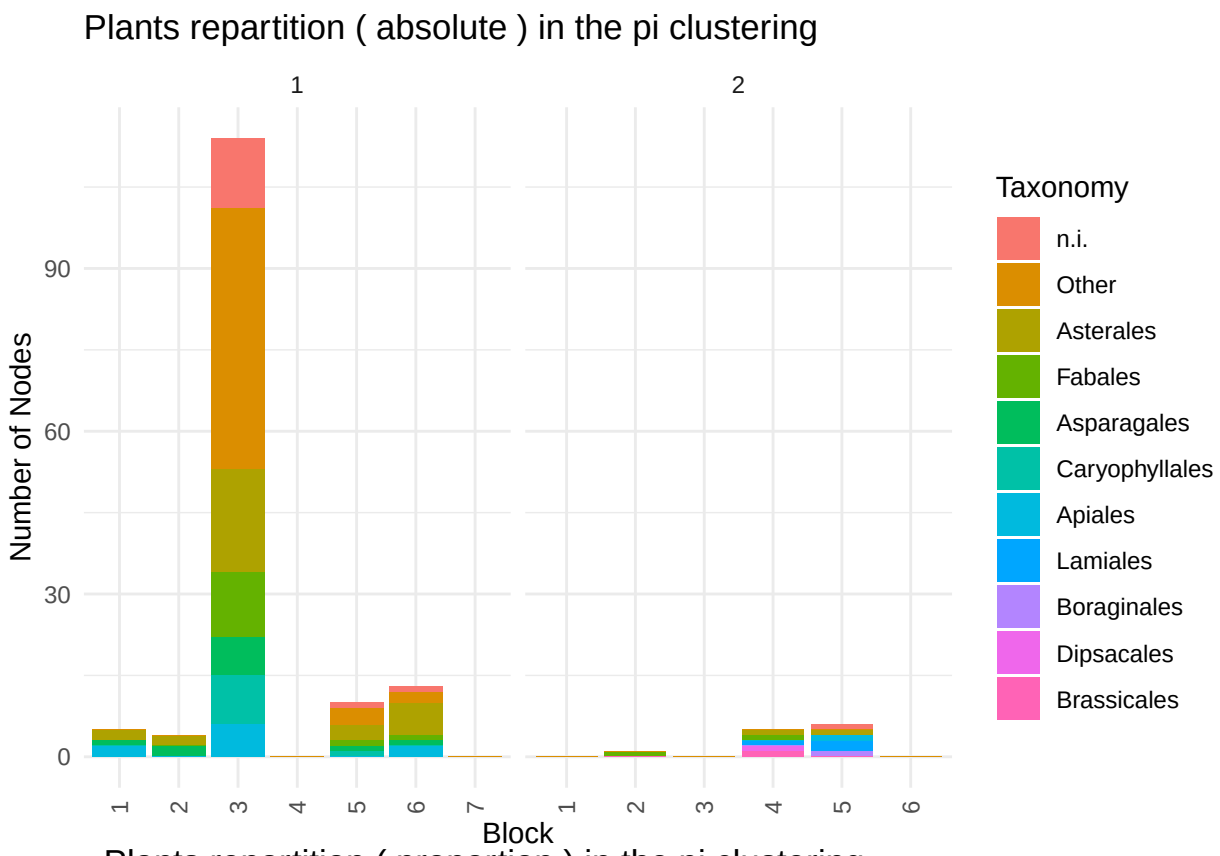
Pour la collection 2 :

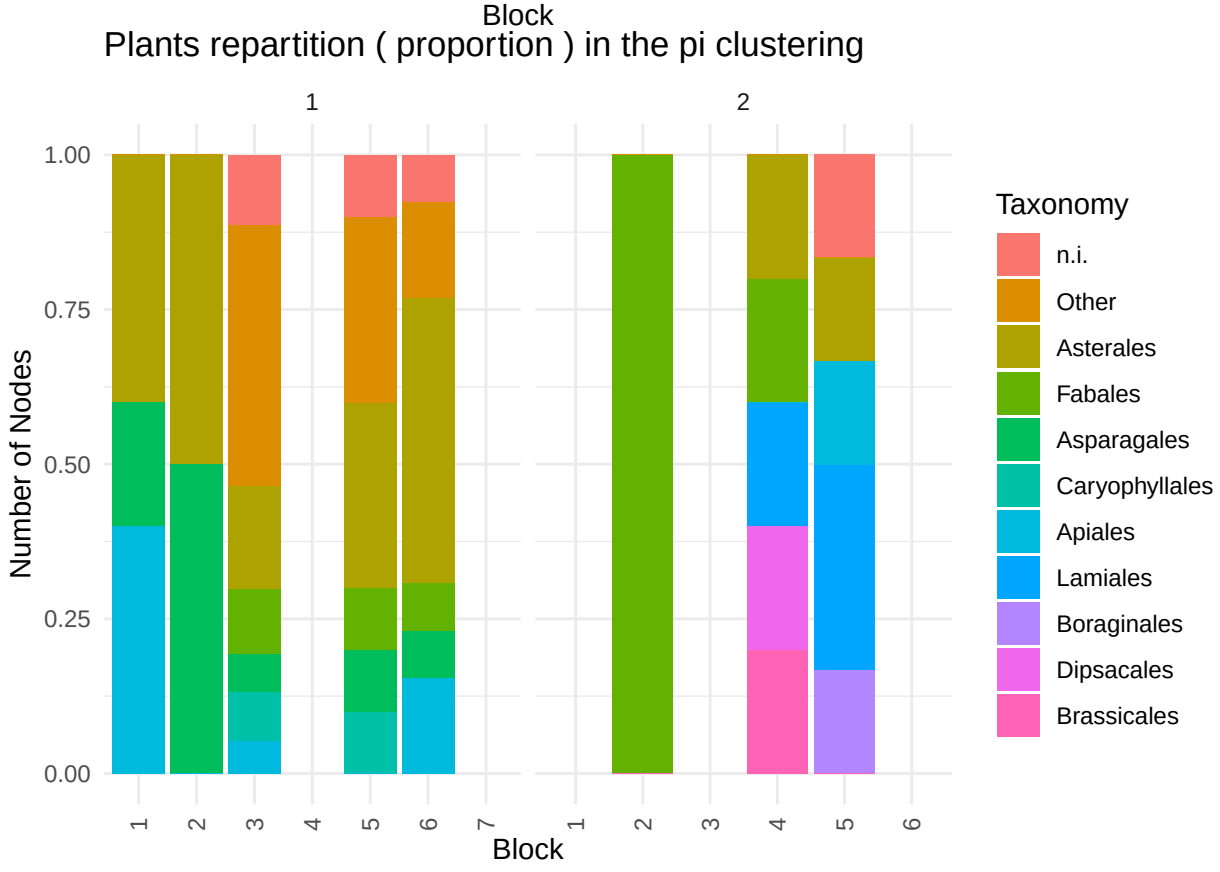
$$\begin{bmatrix} 0.84 & 0.99 & 0.66 & 0.99 & 0.38 & 0.79 \\ 0.79 & 0.5 & 0.01 & 0.19 & 0.46 & 0.51 \\ 0.15 & 0.02 & 0.08 & 0.83 & 0.22 & 0.44 \\ 0 & 0.05 & 0.49 & 0.07 & 0.15 & 0 \\ 0.01 & 0.16 & 0 & 0.04 & 0 & 0 \end{bmatrix}$$

Répartition dans les clusters selon la taxonomie






Plants repartition (absolute) in the pi clustering
1
2
Number of Nodes
90
60
30
0
1
2
3
4
5
6
7
Block
Taxonomy
n.i.
Other
Asterales
Fabales
Asparagales
Caryophyllales
Apiales
Lamiales
Boraginales
Dipsacales
Brassicales


Plants repartition (proportion) in the pi clustering
1
2
Number of Nodes
1.00
0.75
0.50
0.25
0.00
1
2
3
4
5
6
7
Block
Taxonomy
n.i.
Other
Asterales
Fabales
Asparagales
Caryophyllales
Apiales
Lamiales
Boraginales
Dipsacales
Brassicales

Clustering avec le modèle rho

Avec le modèle *rho* nous obtenons les 1 collections et les structures suivantes:

Pour la collection 1

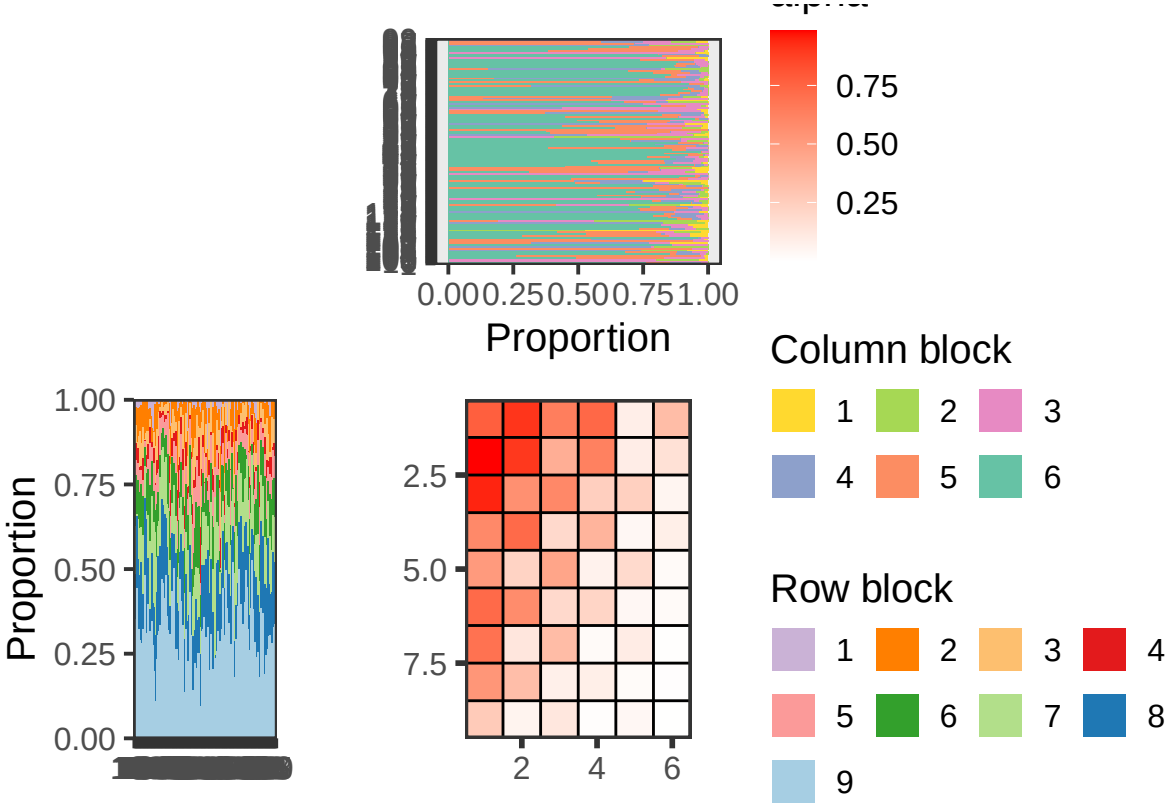


Figure 8: Collection 1 - rho

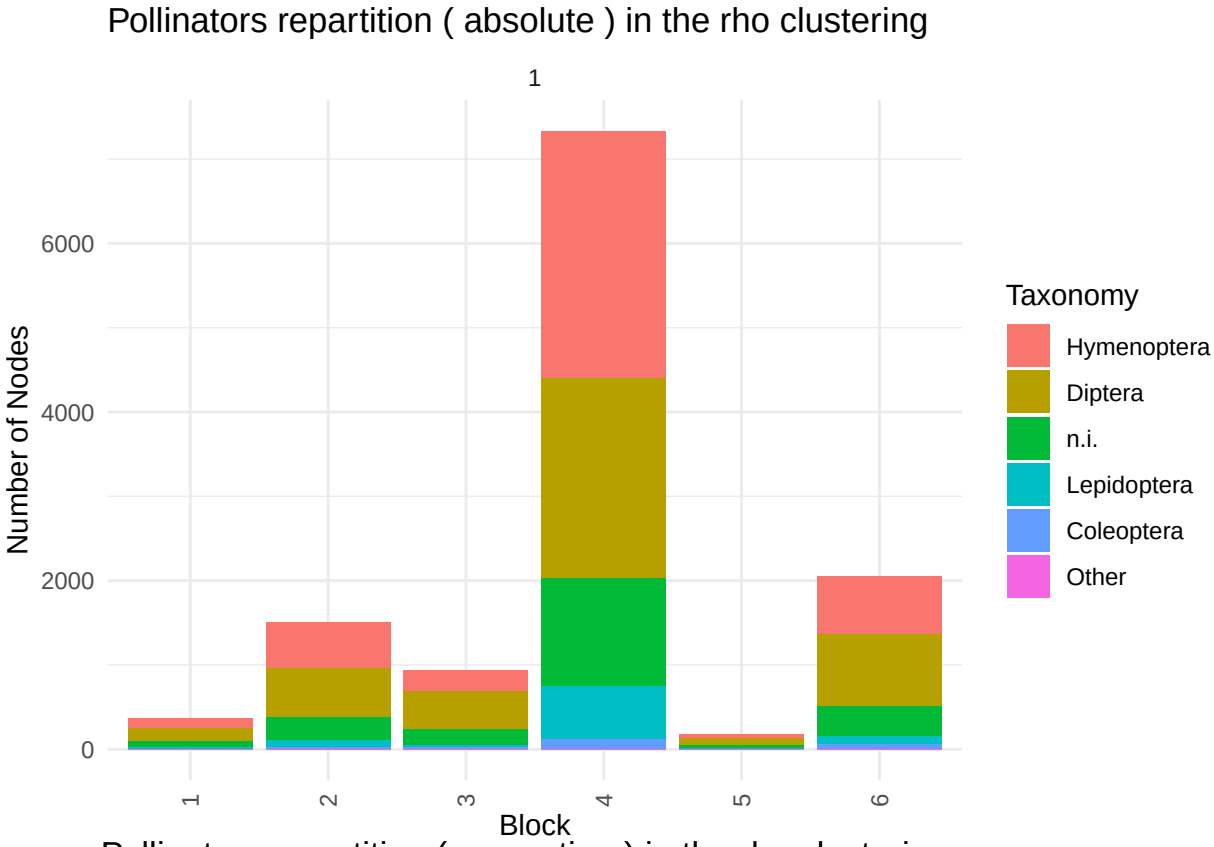
Networks
arroyo1982_1+arroyo1982_2+arroyo3
dupont2003
eberling1999
herrera1988
inouye1988
kato1990
medan2002ld
medan2002rb
olensen2002aig
olensen2002flo
ramirez1992
small1976
vazquez2002
petanidou1991
ramirez1989
smith-ramirez2005
Burkle2013
Junker2013
Weiner2011
Kaiser_control+Kaiser_restored
bartomeus2008
Olito-Fox2014
Gilarranz2014_amarante+Gilarranz2014_barrosa+Gilarranz2014_cincocerros+Gilarranz2014_difuntito+Gilarranz2014_
Benadi2013_1(950m)+Benadi2013_2(1170m)+Benadi2013_6(2020m)
Benadi2013_3(1340m)
Benadi2013_4(1700m)+Benadi2013_5(1800m)
Kaiser-Bunbury2017_Bernica+Kaiser-Bunbury2017_Casse-dent+Kaiser-Bunbury2017_Copolia+Kaiser-Bunbury2017_La
Fang2012
Shay2016
Struck1994
Kato2000
Aizen2008_Challhuaco_U+Aizen2008_Challhuaco_D
Aizen2008_Cerro Otto_U+Aizen2008_Cerro Otto_D
Aizen2008_Llao-llao_U+Aizen2008_Llao-llao_D
Aizen2008_Puerto Blest_U+Aizen2008_Puerto Blest_D
Albrecht2010_49yr+Albrecht2010_63yr+Albrecht2010_84yr+Albrecht2010_109yr+Albrecht2010_130yr
Baldock2011_TB+Baldock2011_JN
Chamberlain_cr1+Chamberlain_cr2+Chamberlain_fs1+Chamberlain_fs2+Chamberlain_go1+Chamberlain_go2+Chamb
Chamberlain_HLU+Chamberlain_HLG+Chamberlain_OKU+Chamberlain_OKG+Chamberlain_WLU+Chamberlain_
Chamberlain_Site1+Chamberlain_Site2+Chamberlain_Site3+Chamberlain_Site4+Chamberlain_Site5+Chamberlain_Si
Dattilo2016
Devoto2005_LQ
Devoto2005_PP+Devoto2005_AP
Devoto2005_LT+Devoto2005_LH
Devoto2005_VT
Devoto2005_LL+Devoto2005_CT
Dupont2009_IsenBjerg+Dupont2009_Other
Freitas2006
Gibson2006_GA1
Gibson2006_GA2
Gibson2006_SG
Gibson2006_TA1
Gibson2006_TA2
Jedrzejewska2013_Ochata+Jedrzejewska2013_Kabaty
LaraRomero2016_pe?alara_EP+LaraRomero2016_pe?alara_PA+LaraRomero2016_nevero_EP+LaraRomero2016_never
LemusJimenez2003
Lundgren2005

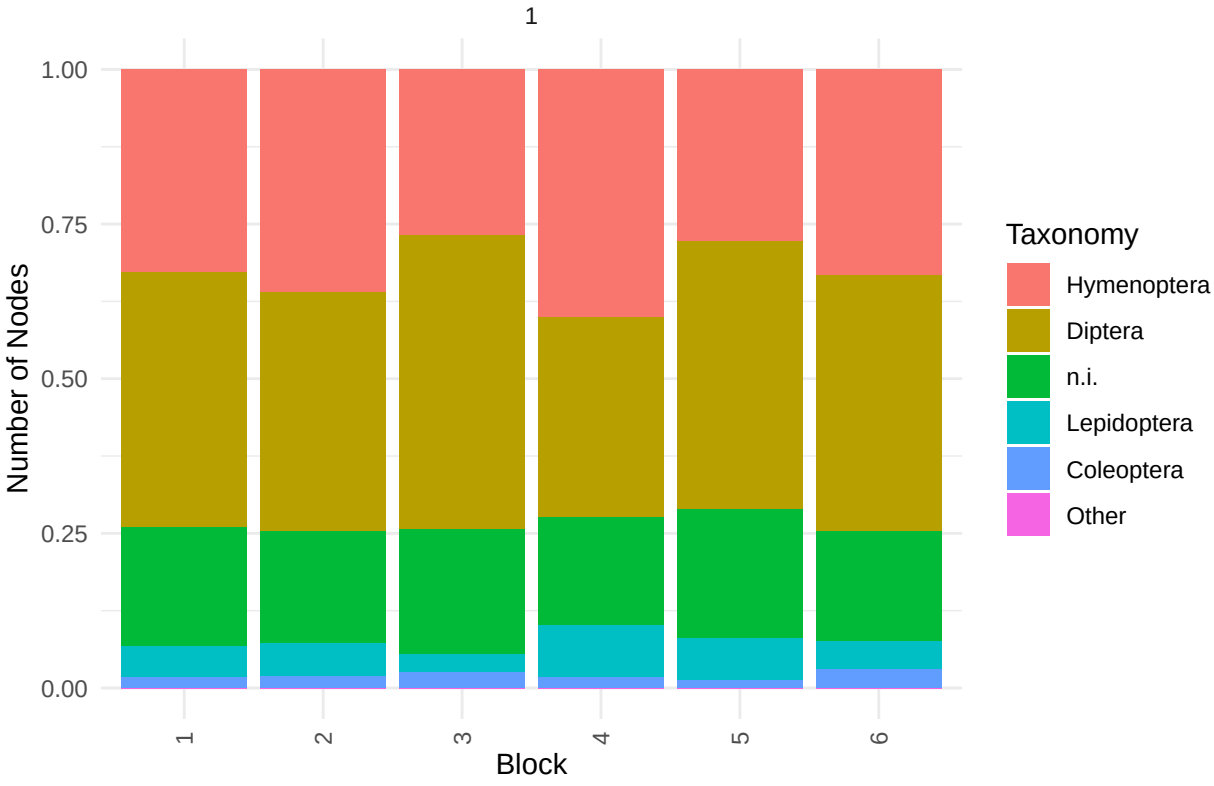
Et voici donc les valeurs numériques pour les α (paramètres de connectivité).

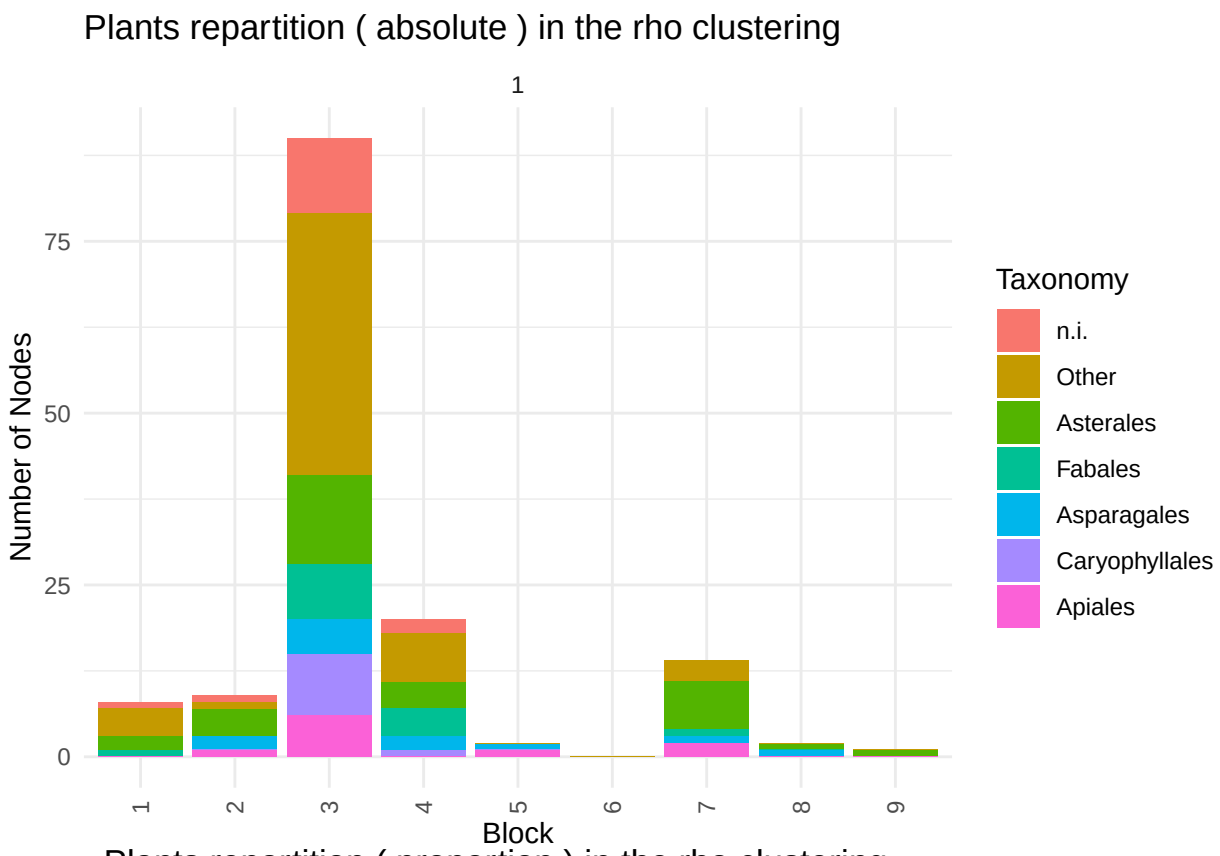
Pour la collection 1 :

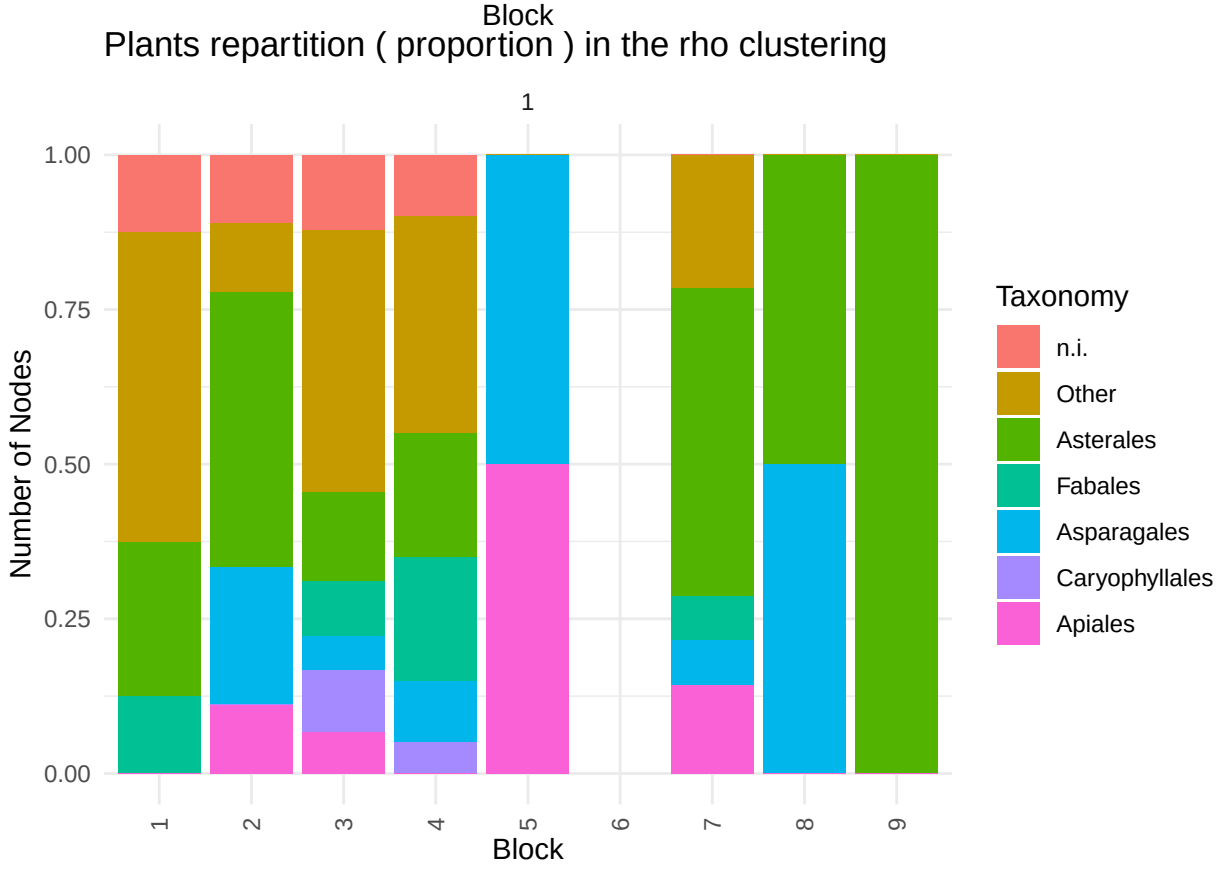
$$\begin{bmatrix} 0.77 & 0.91 & 0.64 & 0.73 & 0.09 & 0.34 & 0.98 & 0.9 & 0.41 \\ 0.63 & 0.09 & 0.15 & 0.94 & 0.56 & 0.6 & 0.25 & 0.24 & 0.05 \\ 0.59 & 0.73 & 0.19 & 0.38 & 0.04 & 0.09 & 0.51 & 0.22 & 0.46 \\ 0.07 & 0.19 & 0.02 & 0.73 & 0.58 & 0.2 & 0.22 & 0.04 & 0.03 \\ 0.69 & 0.13 & 0.34 & 0.03 & 0.1 & 0.01 & 0.53 & 0.33 & 0.08 \\ 0.09 & 0.02 & 0.01 & 0.27 & 0.06 & 0.12 & 0.01 & 0.04 & 0 \end{bmatrix}$$

Répartition dans les clusters selon la taxonomie






Plants repartition (absolute) in the rho clustering
1
Number of Nodes
75
50
25
0
1
2
3
4
5
6
7
8
9
Block
Taxonomy
n.i.
Other
Asterales
Fabales
Asparagales
Caryophyllales
Apiales


Plants repartition (proportion) in the rho clustering
1
Number of Nodes
1.00
0.75
0.50
0.25
0.00
1
2
3
4
5
6
7
8
9
Block
Taxonomy
n.i.
Other
Asterales
Fabales
Asparagales
Caryophyllales
Apiales

Clustering avec le modèle pirho

Avec le modèle *pirho* nous obtenons les 15 collections et les structures suivantes:

Pour la collection 1

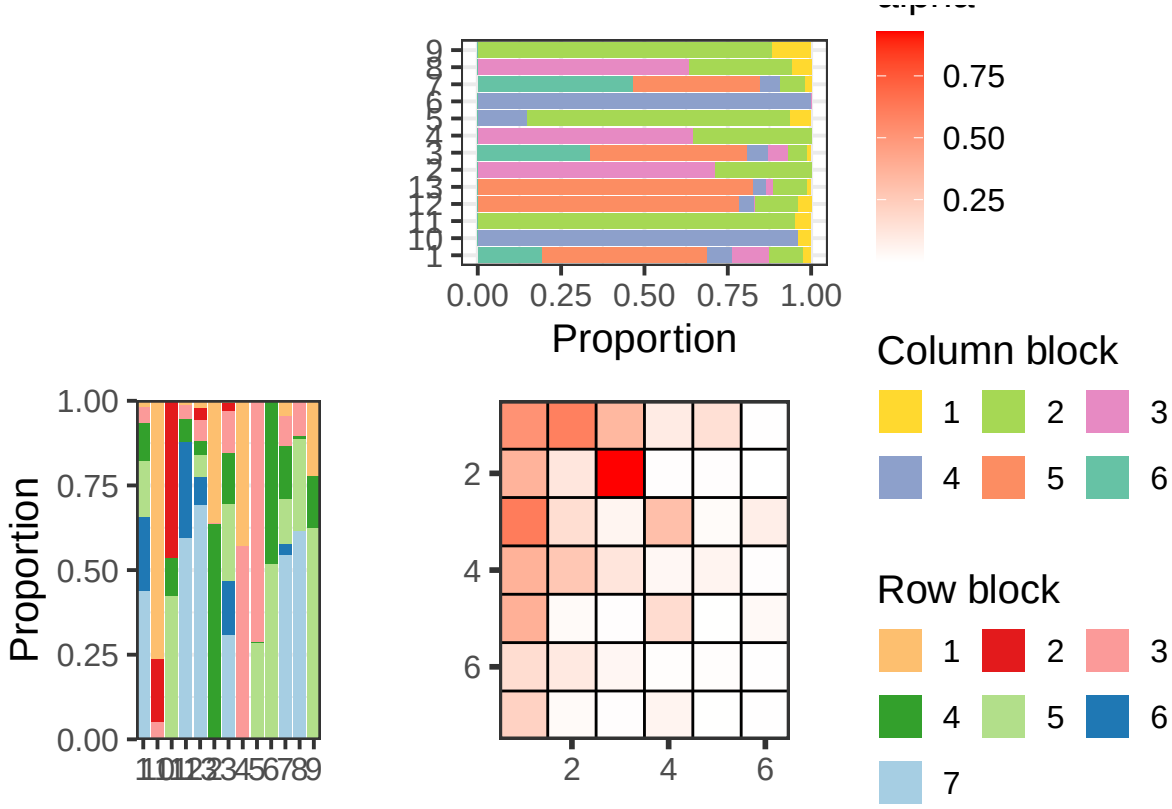


Figure 9: Collection 1 - pirho

Networks
arroyo1982_1+arroyo1982_2+arroyo3
dupont2003
petanidou1991
Aizen2008_Challhuaco_U+Aizen2008_Challhuaco_D
Aizen2008_Llao-llao_U+Aizen2008_Llao-llao_D
Jedrzejewska2013_Ochata+Jedrzejewska2013_Kabaty
Pinheiro2008
Souza_pantanal
Robinson2018
Jolls2019
Traveset2013_Fernandina
Baldock2019_Leeds
Baldock2019_Reading

Pour la collection 2

Networks
Benadi2013_3(1340m)
Trojelsgaard2015_La Gomera
CordenizPicanco2018_SemiPast

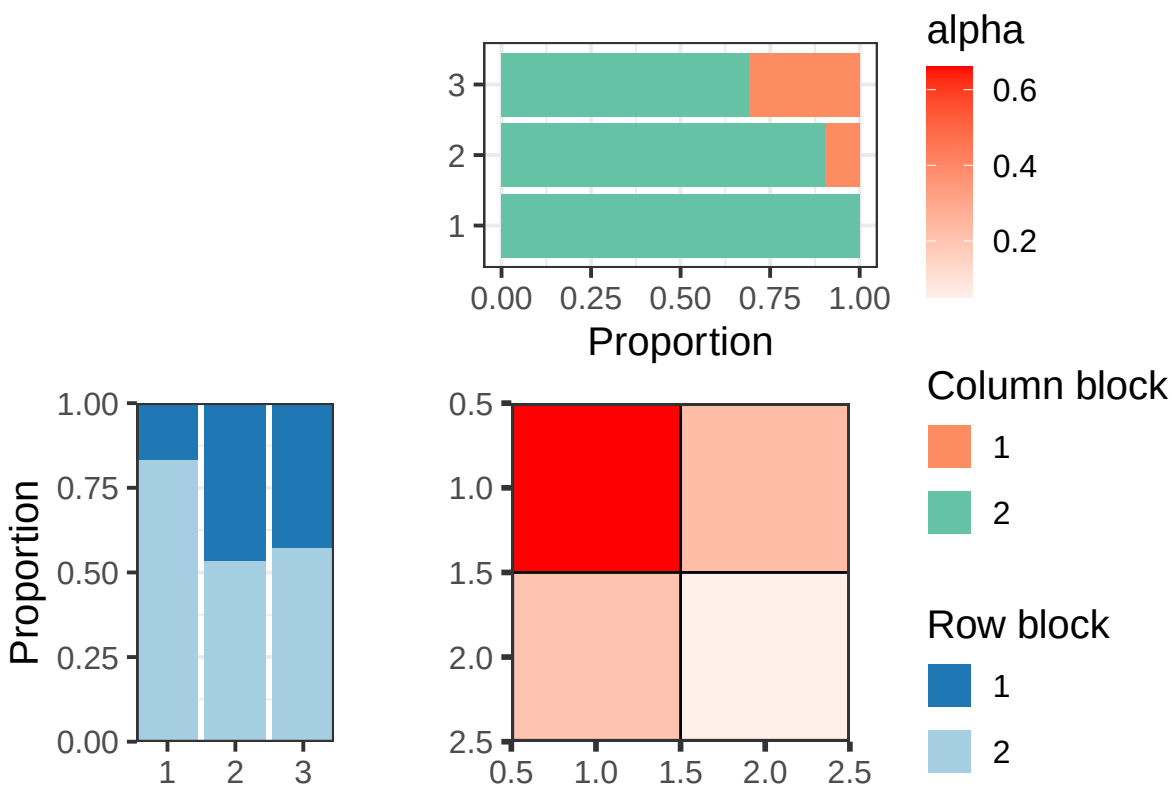


Figure 10: Collection 2 - pirho

Pour la collection 3

Networks
Kato2000
Freitas2006
Inoue1990
Souza_cerrado
Adedoja2019
Baldock2019_Bristol

Pour la collection 4

Networks
Aizen2008_Puerto Blest_U+Aizen2008_Puerto Blest_D
LemusJimenez2003

Pour la collection 5

Networks
inouye1988
Junker2013
Kehinde2014_Joostenberg_Conv+Kehinde2014_Joostenberg_Org+Kehinde2014_Joostenberg_Nat+Kehinde2014_Laiba
Watts2016_Chicon+Watts2016_Mantanay+Watts2016_Choquebamba+Watts2016_Huaran+Watts2016_Piscacucho+Wa
Kakutani1990
Fragoso_RA1+Fragoso_RD2
Souza_chaco
Oleques2019

Pour la collection 6

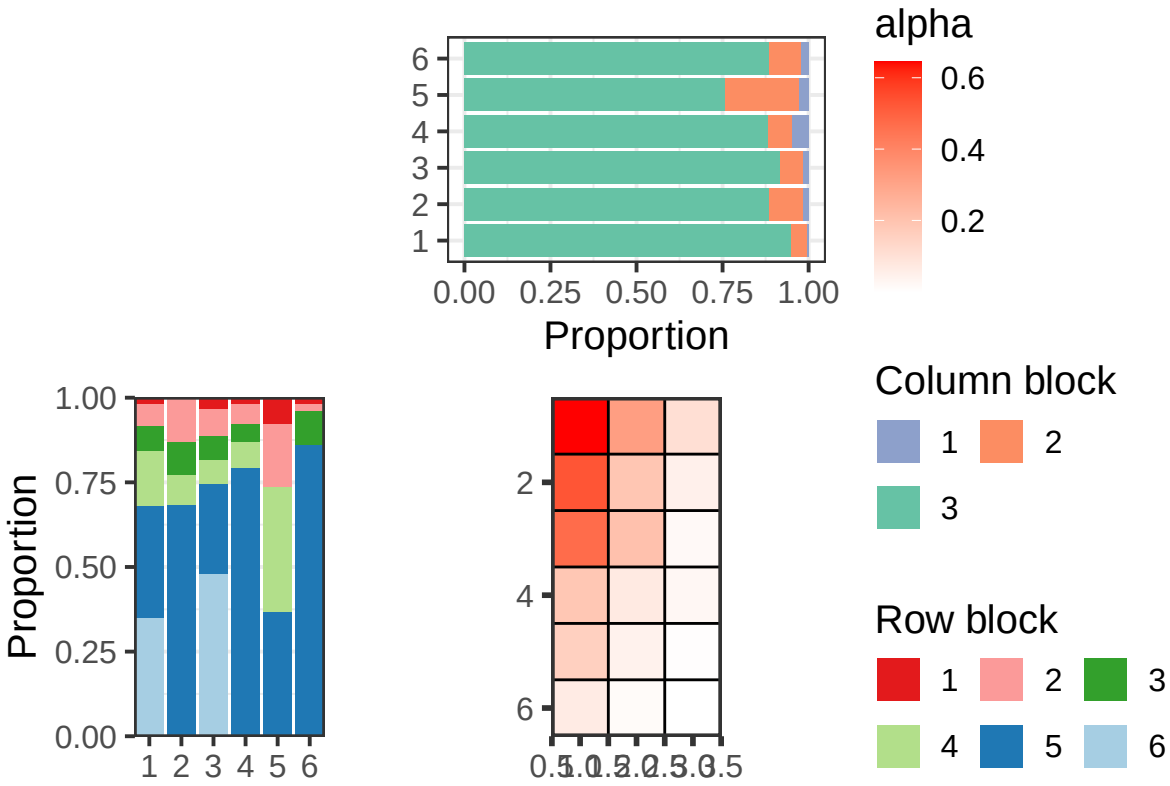


Figure 11: Collection 3 - pirho

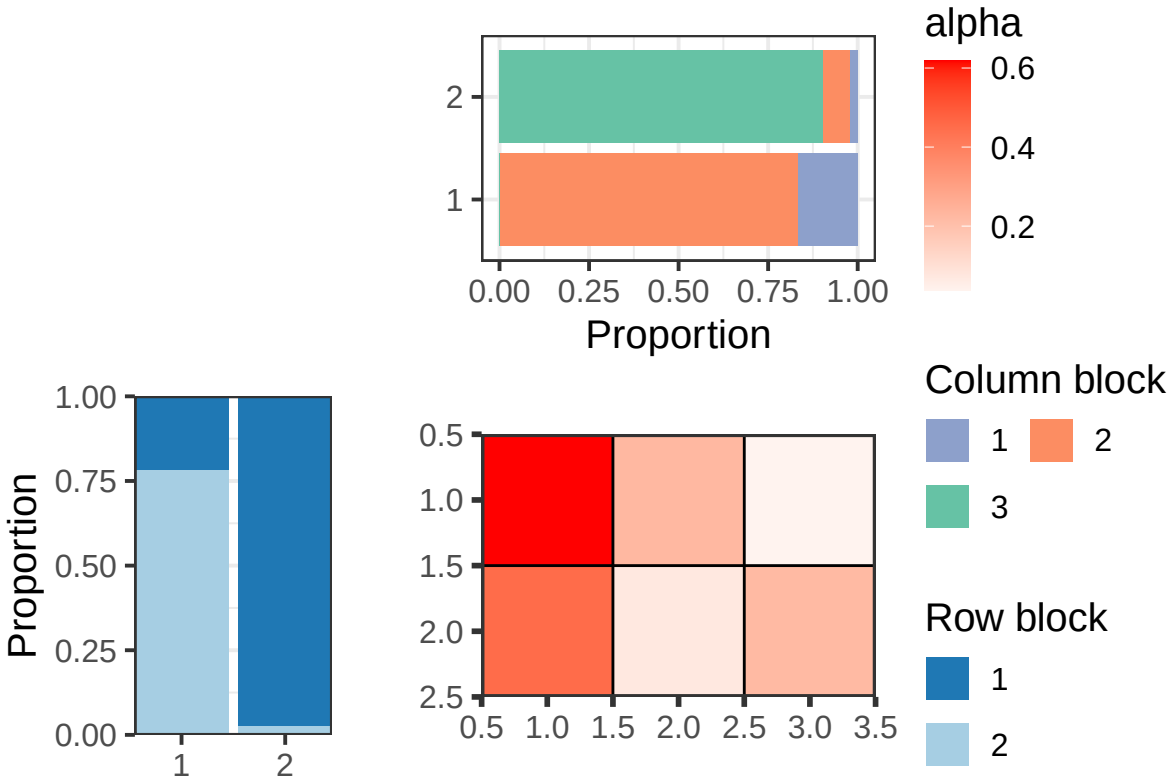


Figure 12: Collection 4 - pirho

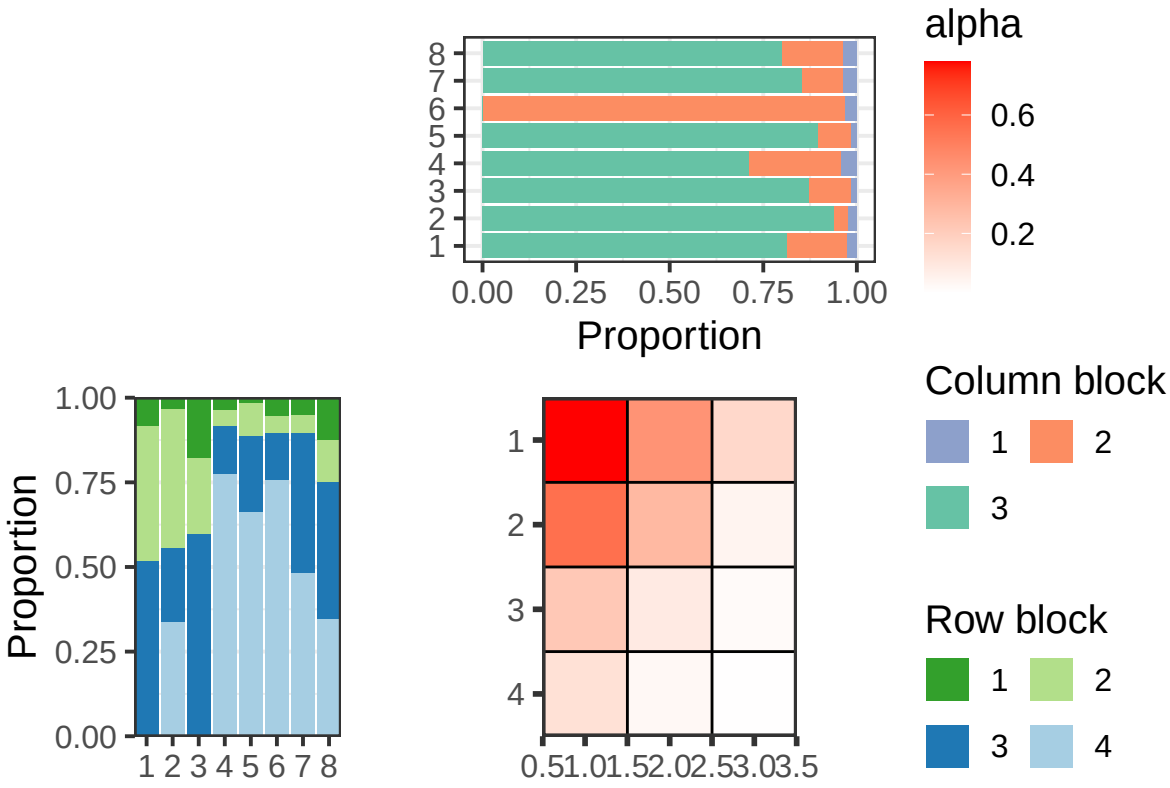


Figure 13: Collection 5 - pirho

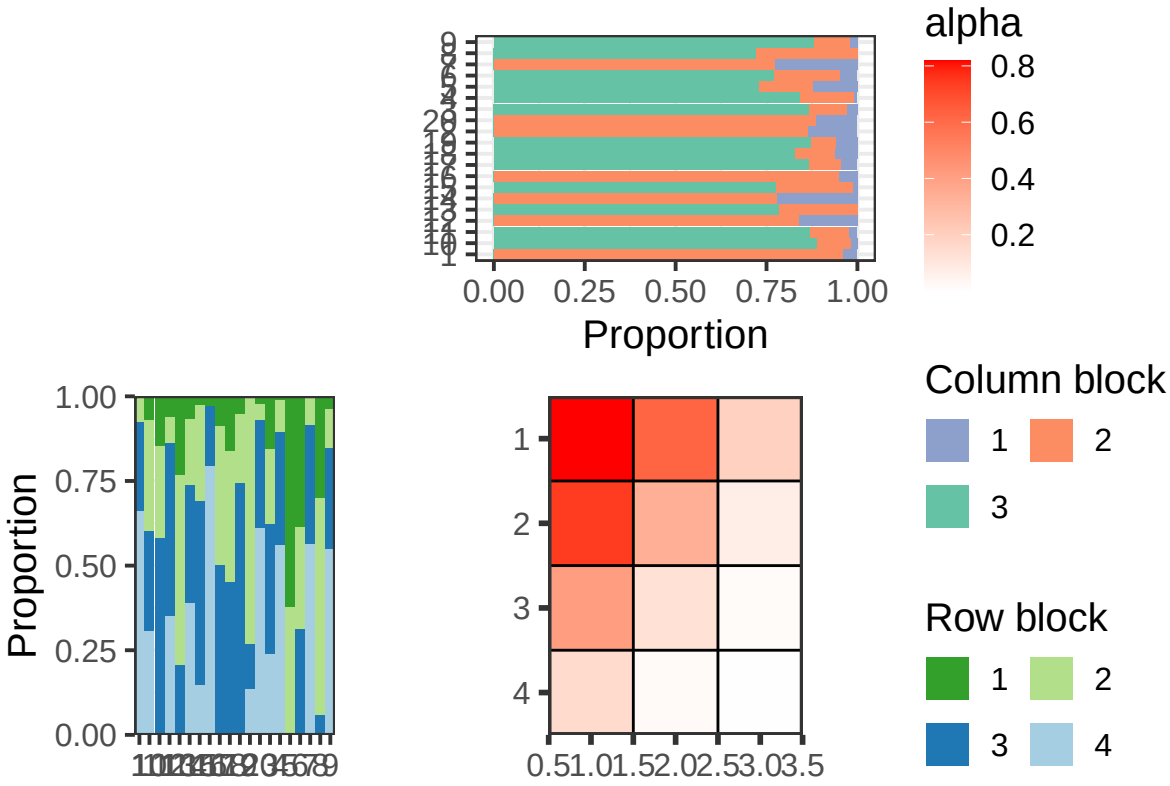


Figure 14: Collection 6 - pirho

Networks
medan2002ld
small1976
smith-ramirez2005
Benadi2013_1(950m)+Benadi2013_2(1170m)+Benadi2013_6(2020m)
Shay2016
Aizen2008_Cerro Otto_U+Aizen2008_Cerro Otto_D
Lundgren2005
Zackenberg
Carstensen_Gigante+Carstensen_Paulino+Carstensen_Tinkerbell+Carstensen_Midway+Carstensen_Cedro+Carstensen
Welti_ID+Welti_K1B+Welti_K4A+Welti_4B+Welti_20B+Welti_20C+Welti_N1A+Welti_N1B+Welti_N4A+Welti_
Bennett2018
CordenizPicanco2018_NatFor
CordenizPicanco2018_ExoFor
CordenizPicanco2018_IntPast
Benadi2018
Villalobos2019
Traveset2013_Santiago
Traveset2013_SantaCruz
Son2019_a1+Son2019_a2+Son2019_a3+Son2019_a4+Son2019_a5+Son2019_a6+Son2019_a7+Son2019_a8+Son2019_
Sritongchuay2019_near+Sritongchuay2019_far

Pour la collection 7

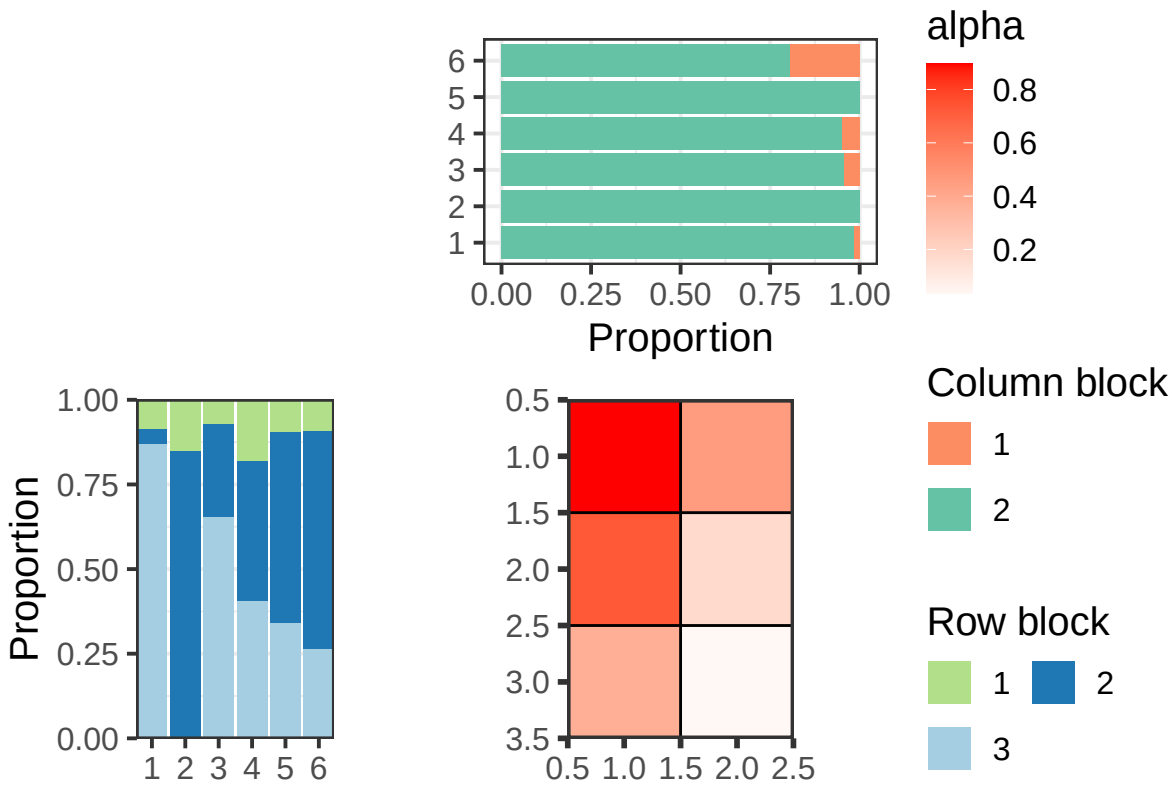


Figure 15: Collection 7 - pirho

Networks
medan2002rb
olensen2002flo
vazquez2002
Trojelsgaard2015_Gran Canaria
Trojelsgaard2015_Western Sahara
LaraRomero2019_blanca+LaraRomero2019_rajada+LaraRomero2019_refugio+LaraRomero2019_torre

Pour la collection 8

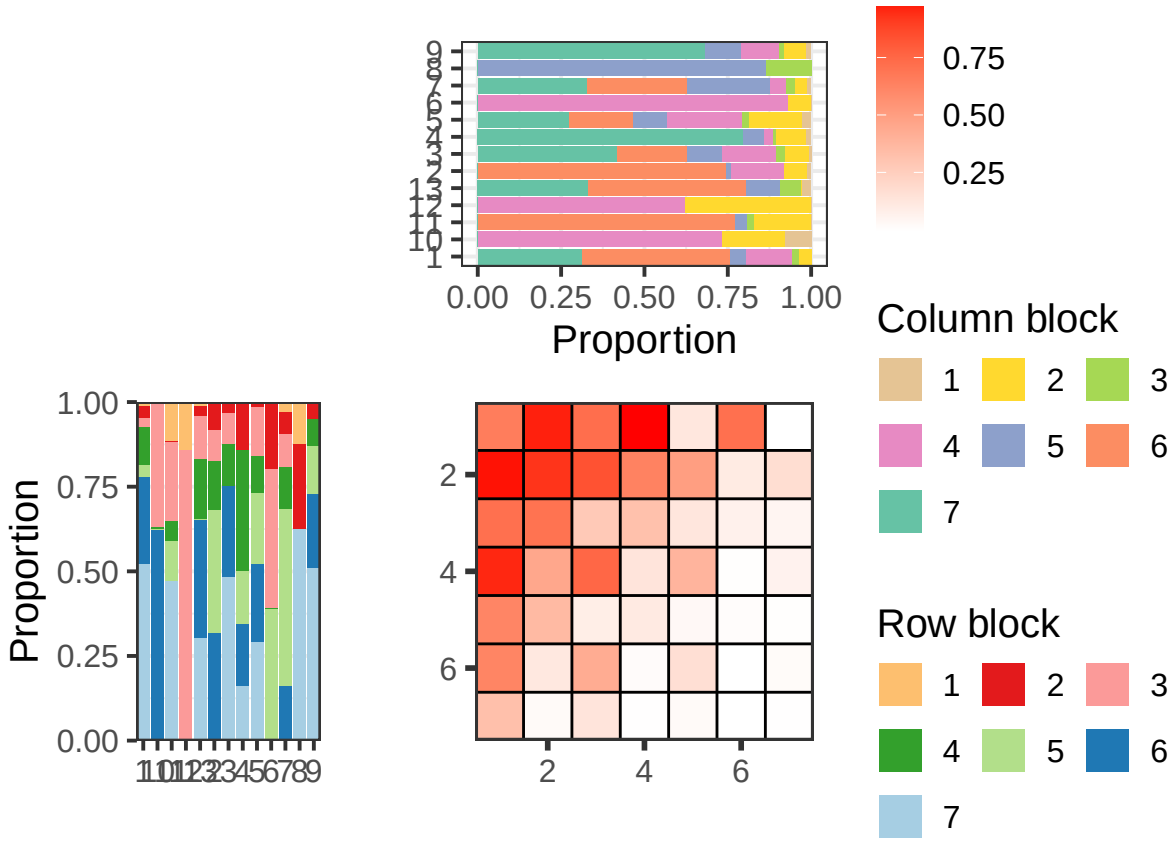


Figure 16: Collection 8 - pirho

Networks
Weiner2011
Kaiser_control+Kaiser_restored
Gilarranz2014_amarante+Gilarranz2014_barrosa+Gilarranz2014_cincocerros+Gilarranz2014_difuntito+Gilarranz2014_
Kaiser-Bunbury2017_Bernica+Kaiser-Bunbury2017_Casse-dent+Kaiser-Bunbury2017_Copolia+Kaiser-Bunbury2017_La
Fang2012
Gibson2006_SG
Gibson2006_TA1
Trojelsgaard2015_Fuerteventura
Pfeiffer_CNE+Pfeiffer_CNM+Pfeiffer_CNT+Pfeiffer_CPB+Pfeiffer_CPM+Pfeiffer_CPR+Pfeiffer_CPS+Pfeiffer_M2+
Biella2019
Nel2017
Ferrero2013
Neli2014

Pour la collection 9

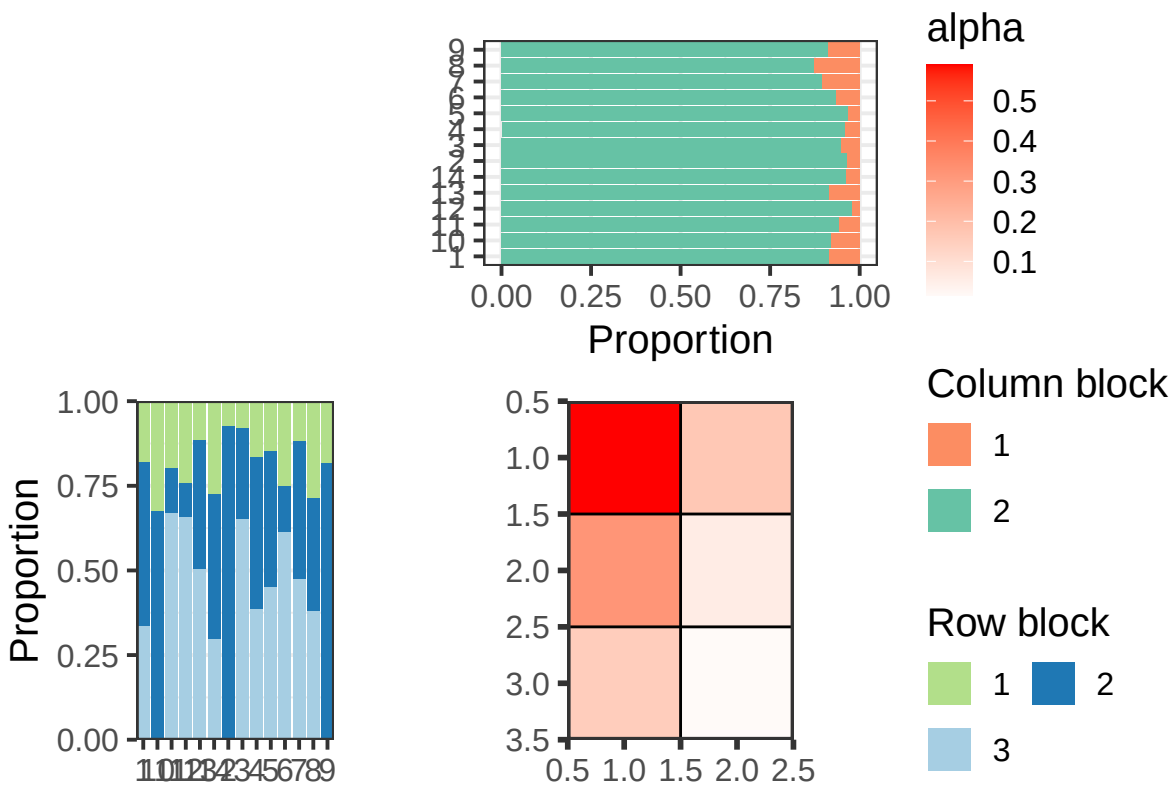


Figure 17: Collection 9 - pirho

Networks
eberling1999
ramirez1992
Struck1994
Albrecht2010_49yr+Albrecht2010_63yr+Albrecht2010_84yr+Albrecht2010_109yr+Albrecht2010_130yr
Devoto2005_PP+Devoto2005_AP
Devoto2005_VT
Gibson2006_TA2
MonteroCastano2017_Albufera+MonteroCastano2017_Llimpa+MonteroCastano2017_Tirant
Yoshihara2008
PopicThesis
Orford_B1+Orford_B2+Orford_B3+Orford_B4+Orford_B5+Orford_B10
Souza_vereda
Adedoja2018b_baseZone+Adedoja2018b_MidZone+Adedoja2018b_HighZone+Adedoja2018b_PeakZone
Hackett2019_NZ_salt_marsh+Hackett2019_NZ_sand_dune+Hackett2019_NZ_scrub_coprosma

Pour la collection 10

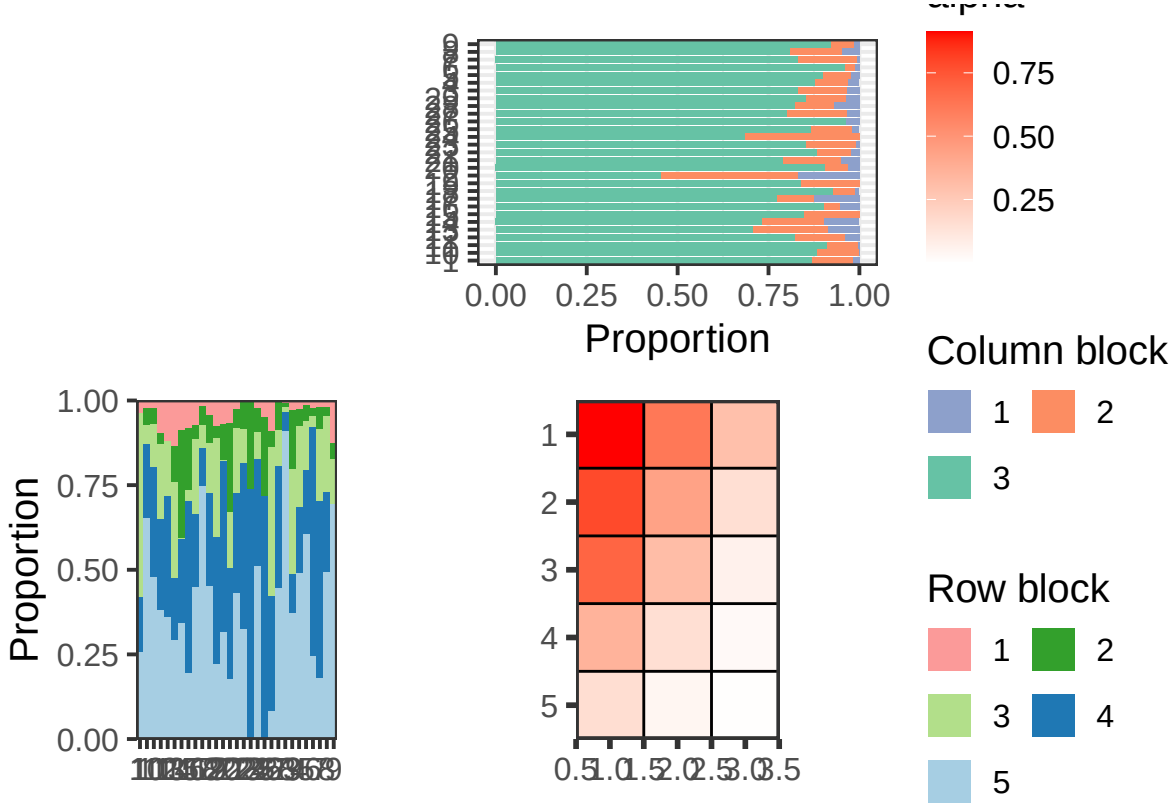


Figure 18: Collection 10 - pirho

Networks
herrera1988
Burkle2013
bartomeus2008
Olito-Fox2014
Benadi2013_4(1700m)+Benadi2013_5(1800m)
Baldock2011_TB+Baldock2011_JN
Chamberlain_HLU+Chamberlain_HLG+Chamberlain_OKU+Chamberlain_OKG+Chamberlain_WLU+Chamberlain_V
Chamberlain_Site1+Chamberlain_Site2+Chamberlain_Site3+Chamberlain_Site4+Chamberlain_Site5+Chamberlain_Si
Devoto2005_LQ
Devoto2005_LT+Devoto2005_LH
Devoto2005_LL+Devoto2005_CT
Dupont2009_IsenBjerg+Dupont2009_Other
Gibson2006_GA1
LaraRomero2016_pe?alara_EP+LaraRomero2016_pe?alara_PA+LaraRomero2016_nevero_EP+LaraRomero2016_never
Marrero2013
Trojelsgaard2015_Tenerife Teno Bajo+Trojelsgaard2015_Tenerife Fasnia
Vanbergen2013_balfarm+Vanbergen2013_bridgend+Vanbergen2013_dalhaikie+Vanbergen2013_netherton+Vanbergen201
Fragoso_RA2+Fragoso_RA3+Fragoso_RD1+Fragoso_RD3
Pornon2017
Orford_B6+Orford_B7+Orford_B8+Orford_B9
Blumel2016
Kantsa2018
Grass2013_1+Grass2013_2+Grass2013_3+Grass2013_4+Grass2013_5+Grass2013_6+Grass2013_7+Grass2013_8+Gra
CordenizPicanco2018_NatVeg
Hackett2019_UK_sand_dune+Hackett2019_UK_grassland+Hackett2019_UK_heathland+Hackett2019_UK_woodland+
Traveset2013_Pinta
Traveset2013_SanCristobal
Simanonok2014
Baldock2019_Edinburgh

Pour la collection 11

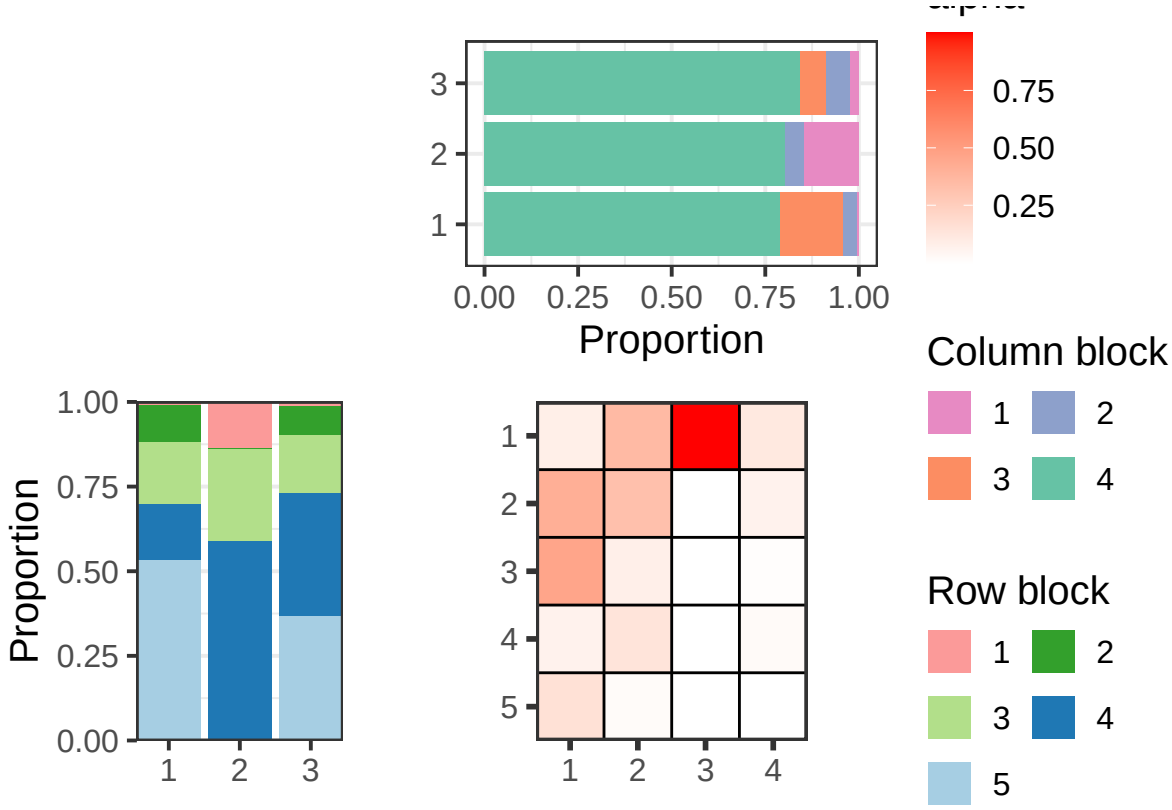


Figure 19: Collection 11 - pirho

Networks
kato1990
ramirez1989
Kato1993

Pour la collection 12

Networks
Chamberlain_cr1+Chamberlain_cr2+Chamberlain_fs1+Chamberlain_fs2+Chamberlain_go1+Chamberlain_go2+Chaml
Dattilo2016
KatoMiura1996

Pour la collection 13

Networks
olensen2002aig

Pour la collection 14

Networks
Trojelsgaard2015_El Hierro

Pour la collection 15

Networks
Gibson2006_GA2

Et voici donc les valeurs numériques pour les α (paramètres de connectivité).

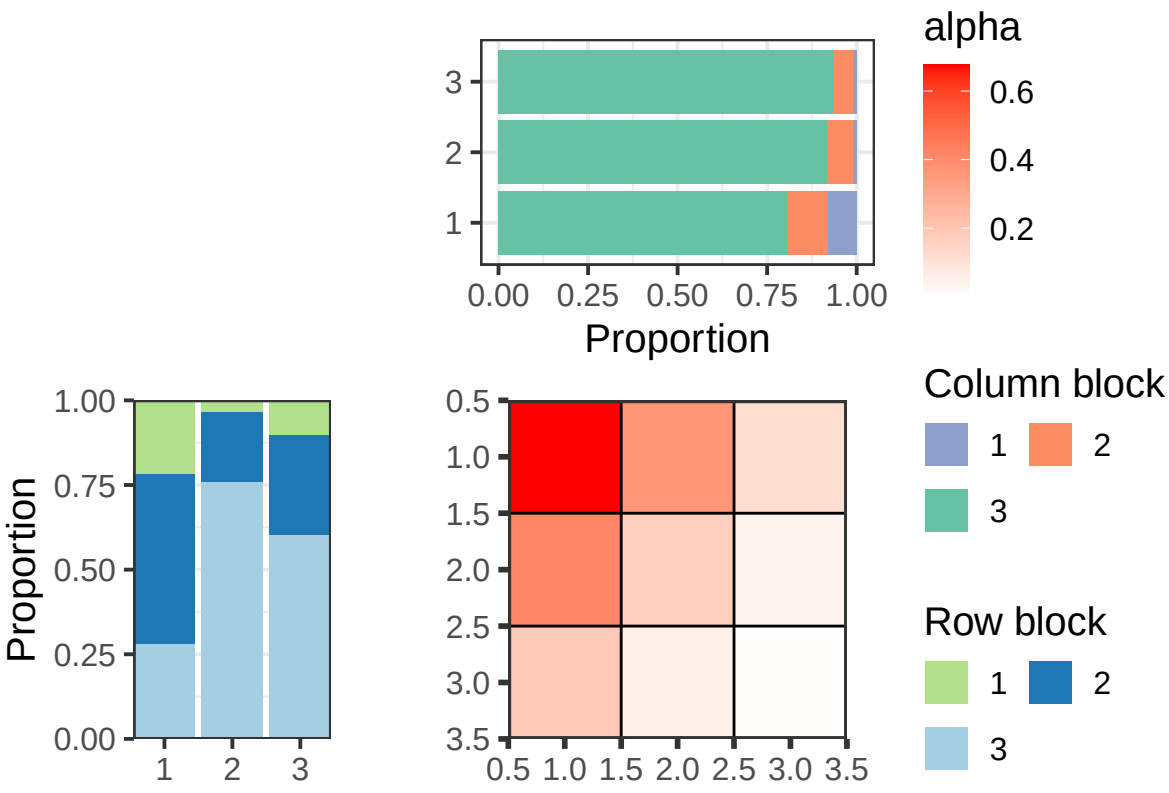


Figure 20: Collection 12 - pirho

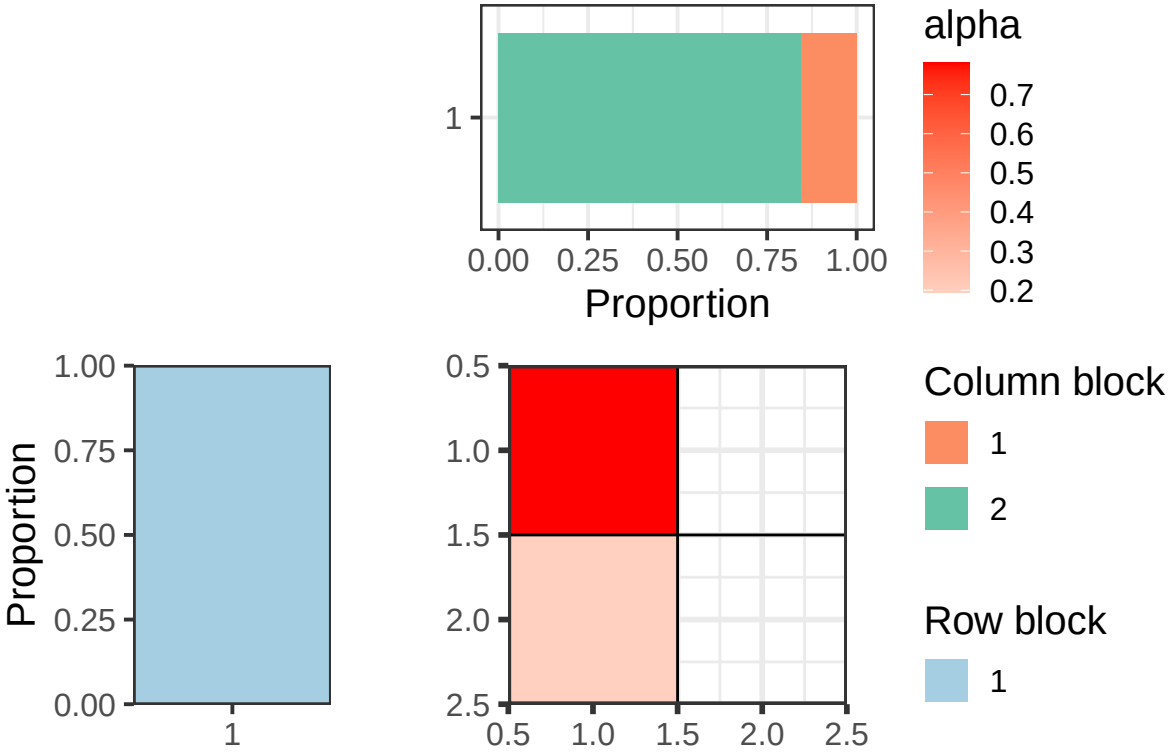


Figure 21: Collection 13 - pirho

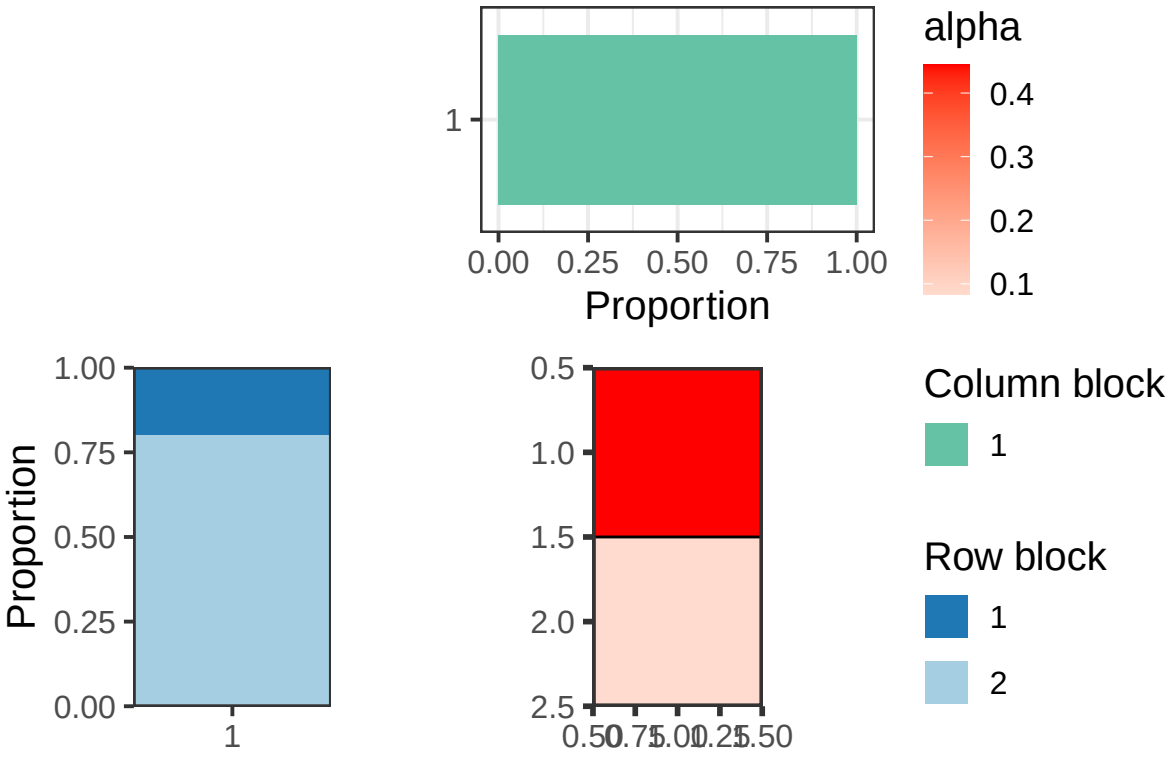


Figure 22: Collection 14 - pirho

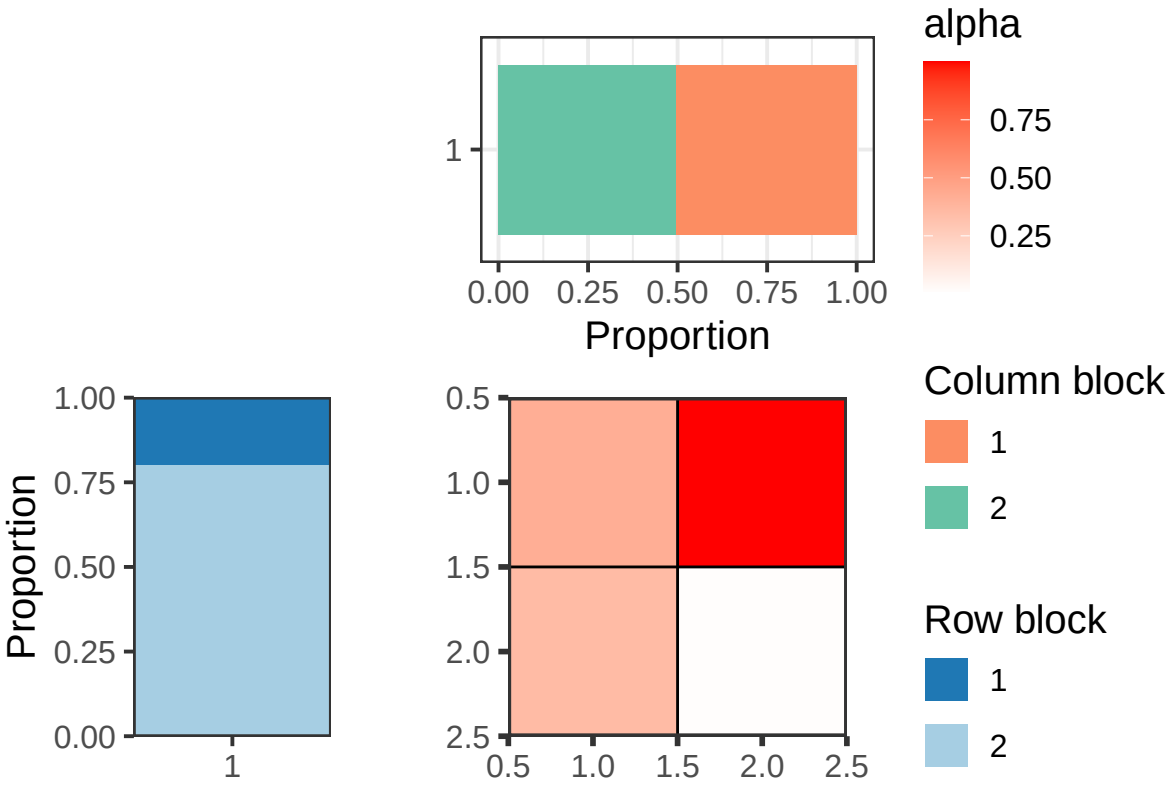


Figure 23: Collection 15 - pirho

Pour la collection 1 :

$$\begin{bmatrix} 0.52 & 0.6 & 0.34 & 0.1 & 0.15 & 0 & 0.36 \\ 0.12 & 0.93 & 0.01 & 0.01 & 0 & 0.61 & 0.16 \\ 0.05 & 0.31 & 0.02 & 0.08 & 0.37 & 0.27 & 0.12 \\ 0.04 & 0.05 & 0.01 & 0.38 & 0.03 & 0.01 & 0.17 \\ 0 & 0.03 & 0.16 & 0.11 & 0.04 & 0.01 & 0.01 \\ 0.01 & 0.22 & 0.02 & 0.01 & 0.05 & 0 & 0.01 \end{bmatrix}$$

Pour la collection 2 :

$$\begin{bmatrix} 0.66 & 0.23 \\ 0.2 & 0.05 \end{bmatrix}$$

Pour la collection 3 :

$$\begin{bmatrix} 0.64 & 0.32 & 0.11 & 0.53 & 0.19 & 0.05 \\ 0.47 & 0.21 & 0.02 & 0.19 & 0.07 & 0.03 \\ 0.16 & 0.05 & 0.01 & 0.07 & 0.01 & 0 \end{bmatrix}$$

Pour la collection 4 :

$$\begin{bmatrix} 0.45 & 0.07 \\ 0.22 & 0.62 \\ 0.23 & 0.04 \end{bmatrix}$$

Pour la collection 5 :

$$\begin{bmatrix} 0.78 & 0.43 & 0.16 & 0.56 \\ 0.29 & 0.04 & 0.22 & 0.08 \\ 0.02 & 0.12 & 0.03 & 0 \end{bmatrix}$$

Pour la collection 6 :

$$\begin{bmatrix} 0.82 & 0.63 & 0.2 & 0.74 \\ 0.34 & 0.07 & 0.41 & 0.13 \\ 0.02 & 0.16 & 0.03 & 0 \end{bmatrix}$$

Pour la collection 7 :

$$\begin{bmatrix} 0.9 & 0.46 & 0.72 \\ 0.17 & 0.37 & 0.03 \end{bmatrix}$$

Pour la collection 8 :

$$\begin{bmatrix} 0.66 & 0.97 & 0.72 & 1 & 0.13 & 0.71 & 0 \\ 0.99 & 0.93 & 0.84 & 0.64 & 0.5 & 0.11 & 0.17 \\ 0.71 & 0.7 & 0.28 & 0.32 & 0.13 & 0.07 & 0.05 \\ 0.96 & 0.46 & 0.75 & 0.14 & 0.39 & 0.01 & 0.07 \\ 0.62 & 0.36 & 0.09 & 0.11 & 0.04 & 0.02 & 0.01 \\ 0.62 & 0.12 & 0.43 & 0.02 & 0.17 & 0 & 0.02 \\ 0.33 & 0.03 & 0.14 & 0 & 0.03 & 0 & 0 \end{bmatrix}$$

Pour la collection 9 :

$$\begin{bmatrix} 0.59 & 0.17 & 0.32 \\ 0.06 & 0.15 & 0.02 \end{bmatrix}$$

Pour la collection 10 :

$$\begin{bmatrix} 0.91 & 0.62 & 0.3 & 0.79 & 0.44 \\ 0.15 & 0.7 & 0.32 & 0.07 & 0.36 \\ 0.15 & 0.03 & 0.16 & 0.05 & 0.01 \end{bmatrix}$$

Pour la collection 11 :

$$\begin{bmatrix} 0.09 & 0.36 & 1 & 0.12 & 0.41 \\ 0.33 & 0 & 0.07 & 0.46 & 0.09 \\ 0 & 0.01 & 0.07 & 0.14 & 0 \\ 0.03 & 0.16 & 0.02 & 0 & 0 \end{bmatrix}$$

Pour la collection 12 :

$$\begin{bmatrix} 0.68 & 0.37 & 0.12 \\ 0.41 & 0.17 & 0.04 \\ 0.19 & 0.05 & 0.01 \end{bmatrix}$$

Pour la collection 13 :

$$\begin{bmatrix} 0.78 \\ 0.19 \end{bmatrix}$$

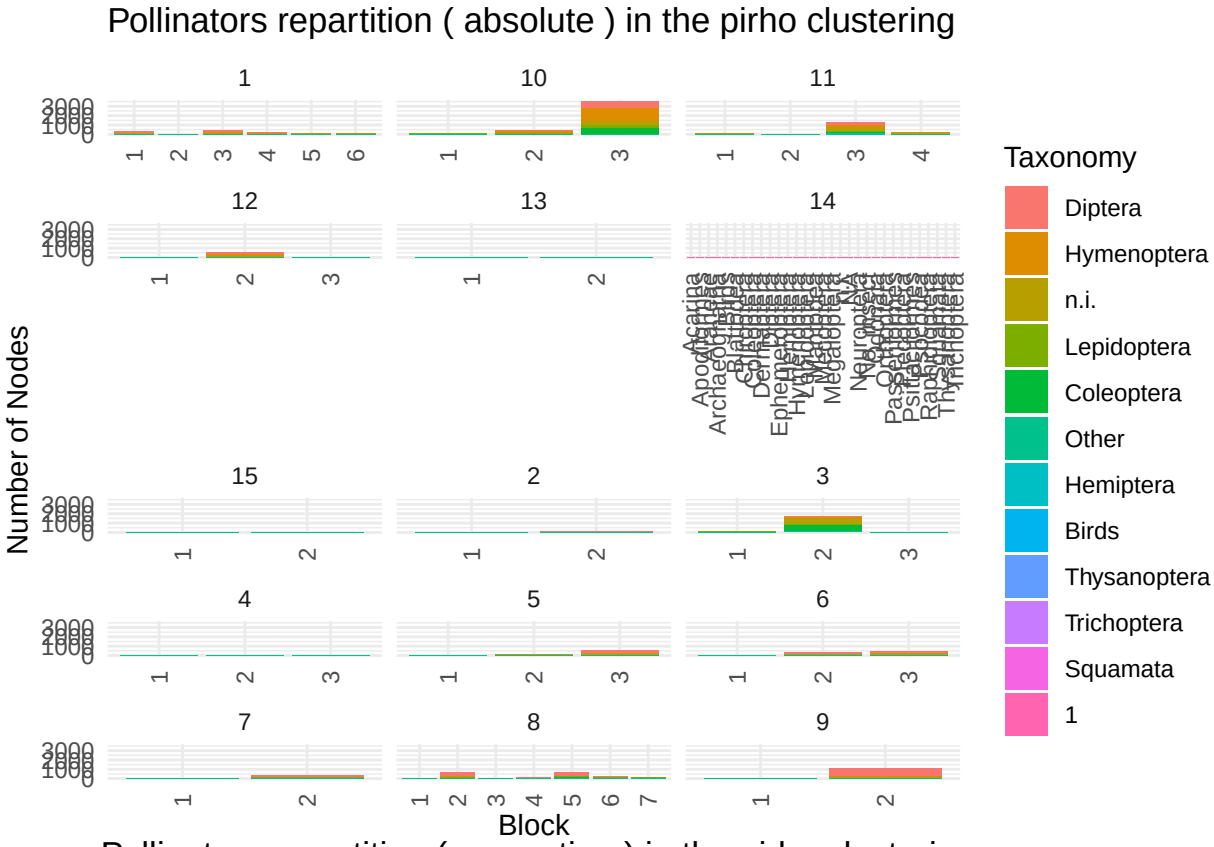
Pour la collection 14 :

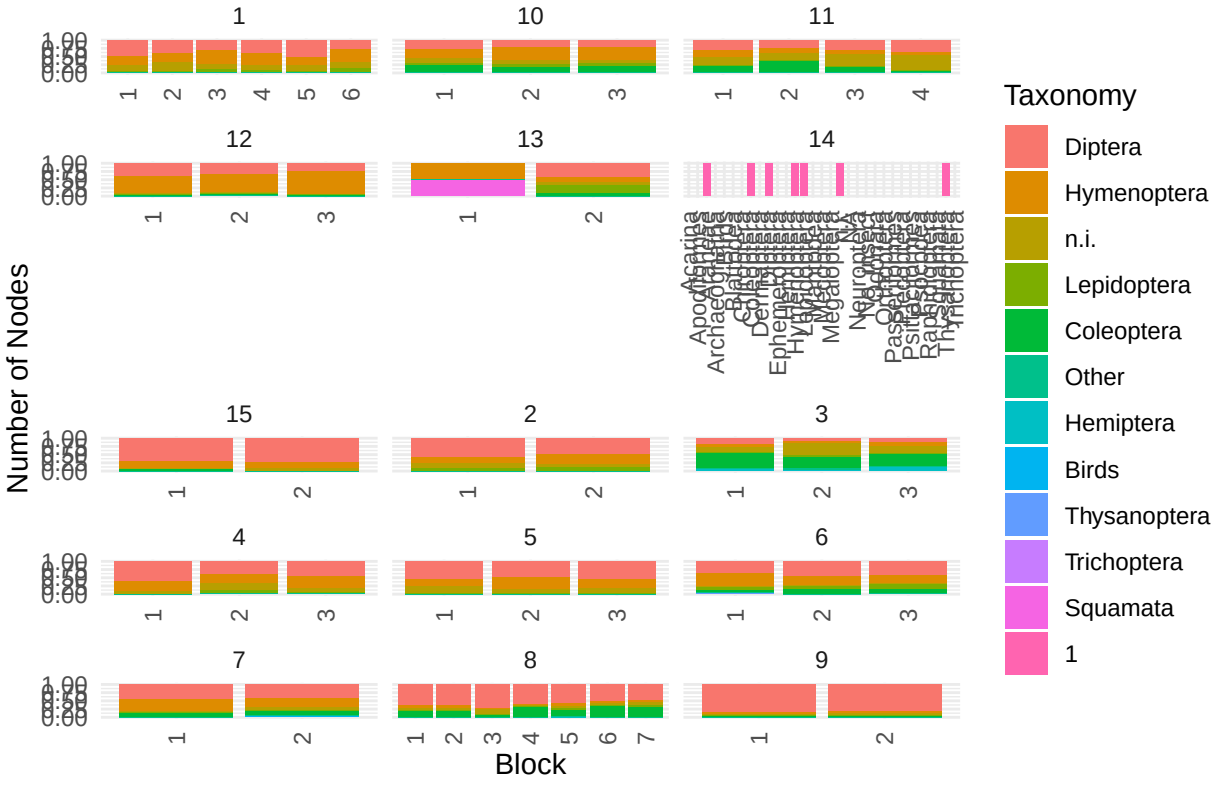
$$\begin{bmatrix} 0.44 & 0.08 \end{bmatrix}$$

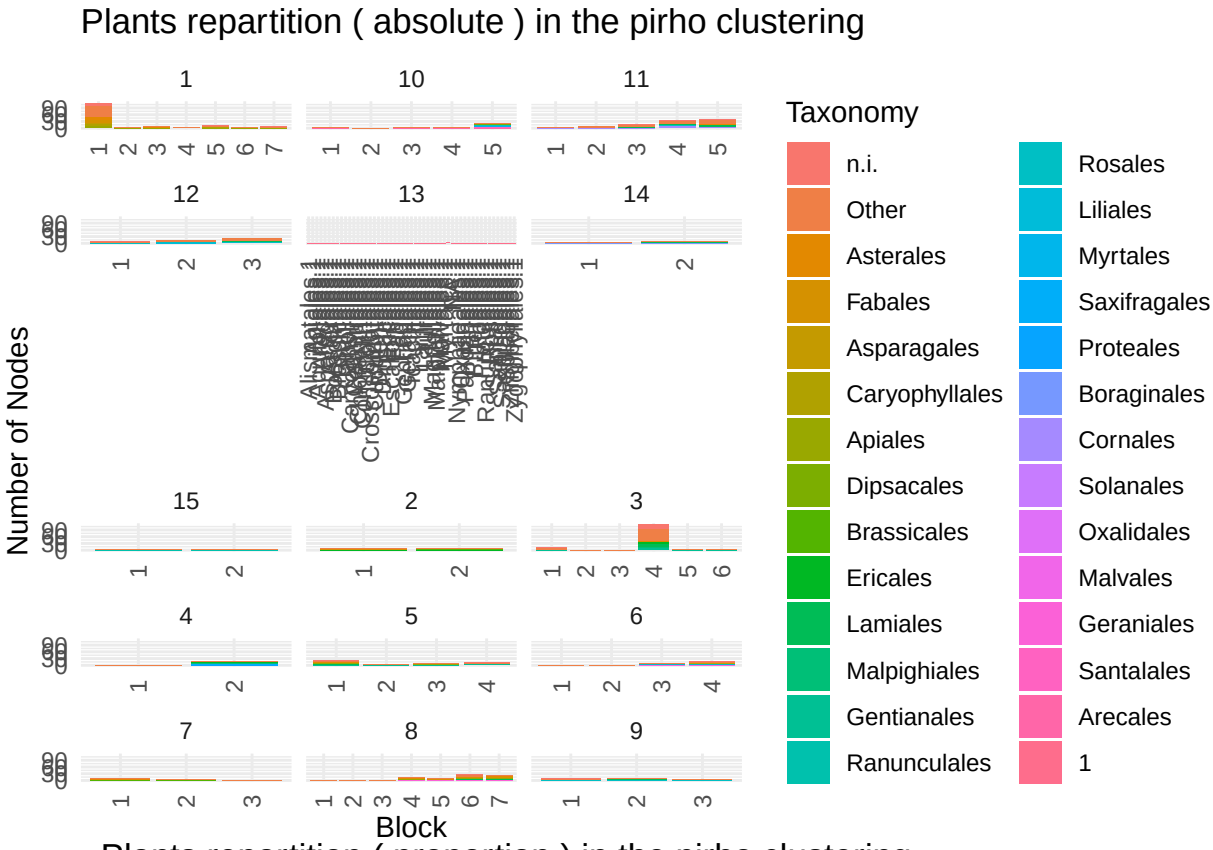
Pour la collection 15 :

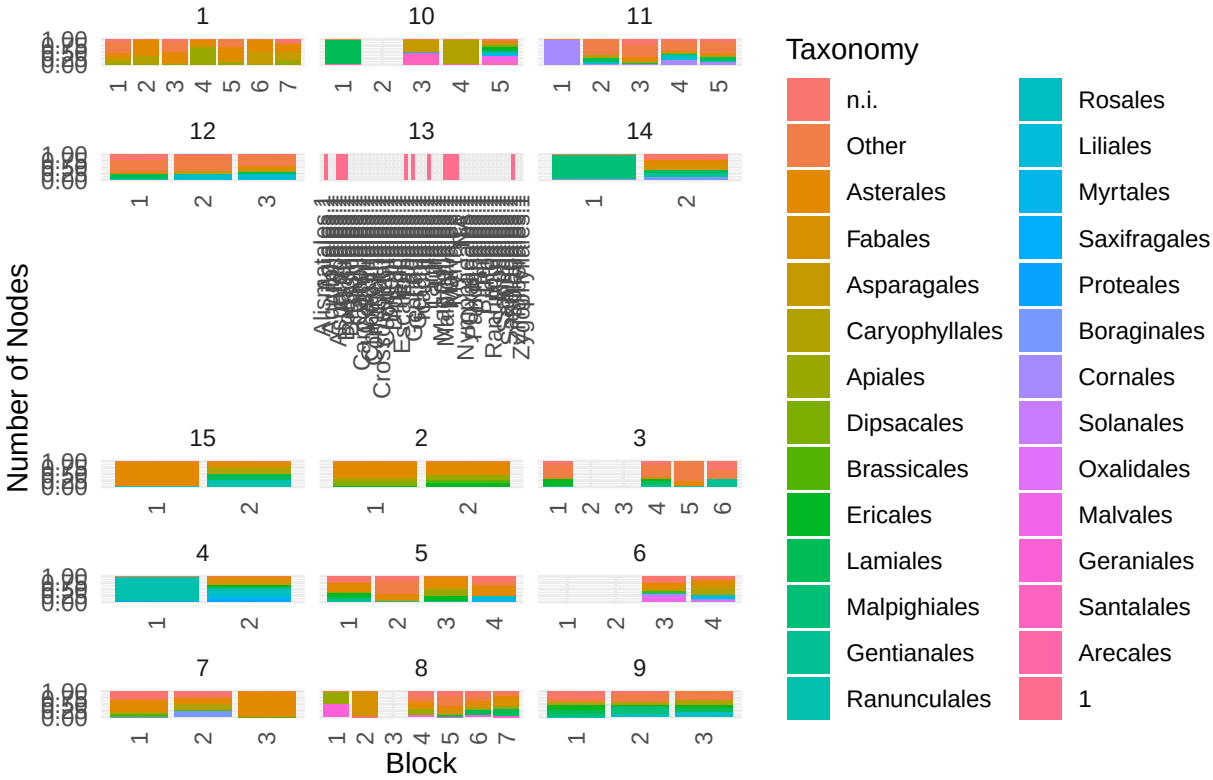
$$\begin{bmatrix} 0.42 & 1 \\ 0.35 & 0.01 \end{bmatrix}$$

Répartition dans les clusters selon la taxonomie






Plants repartition (absolute) in the pirho clustering
Number of Nodes
Block
Taxonomy
n.i.
Other
Asterales
Fabales
Asparagales
Caryophyllales
Apiales
Dipsacales
Brassicales
Ericales
Lamiales
Malpighiales
Gentianales
Ranunculales
Rosales
Liliales
Myrtales
Saxifragales
Proteales
Boraginales
Cornales
Solanales
Oxalidales
Malvales
Geraniales
Santalales
Arecales
1


Plants repartition (proportion) in the pirho clustering
Number of Nodes
Block
Taxonomy
n.i.
Other
Asterales
Fabales
Asparagales
Caryophyllales
Apiales
Dipsacales
Brassicales
Ericales
Lamiales
Malpighiales
Gentianales
Ranunculales
Rosales
Liliales
Myrtales
Saxifragales
Proteales
Boraginales
Cornales
Solanales
Oxalidales
Malvales
Geraniales
Santalales
Arecales
1