Histone.HG1.1
SOS1/SOS2

Gain: Glam,NA
Presence Eukaryota prob = 0.99
Present: 42
Losses: NA

Histone,Histone_H2A_C
n=26

Histone
n=6

zf–CCHH,Histone,
n=1

LRR_9,Histone
n=1
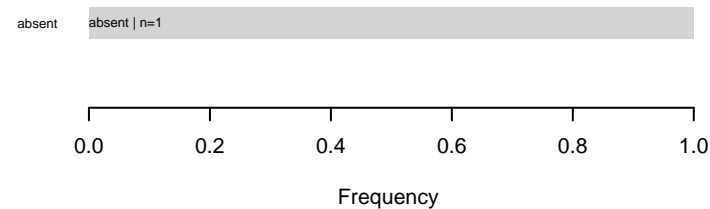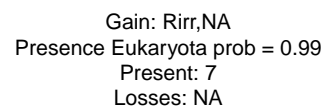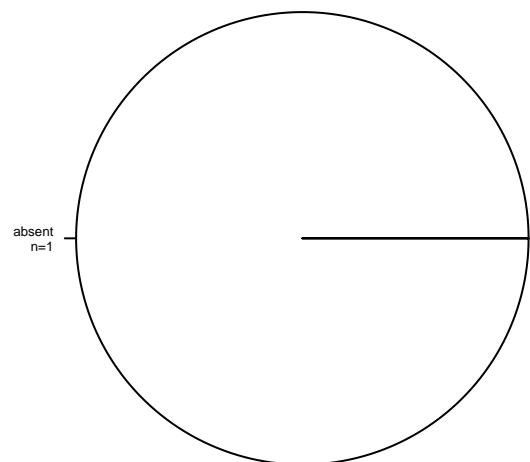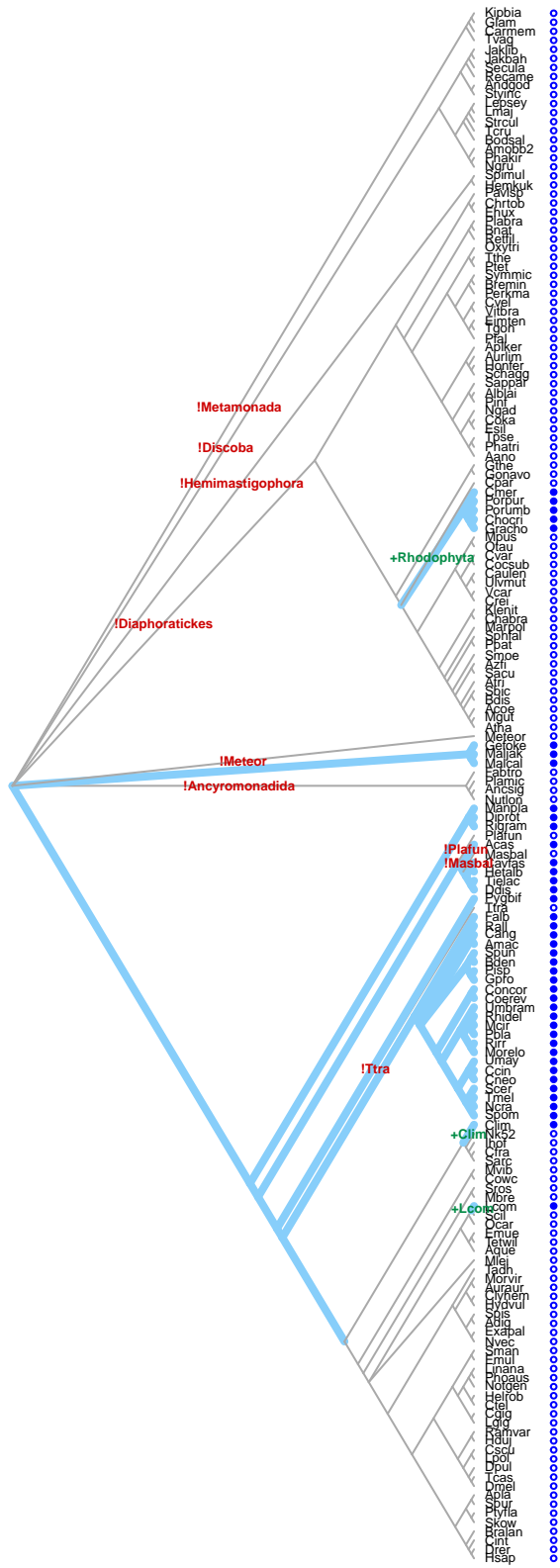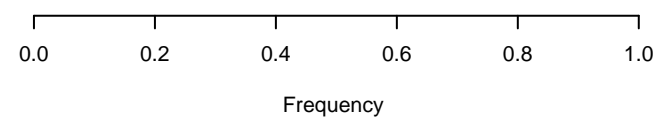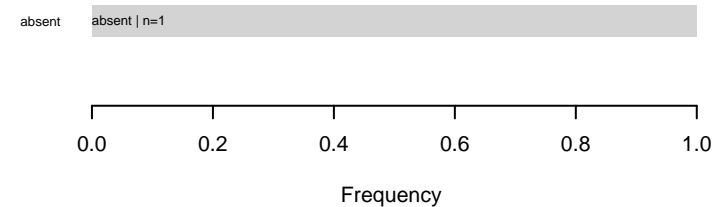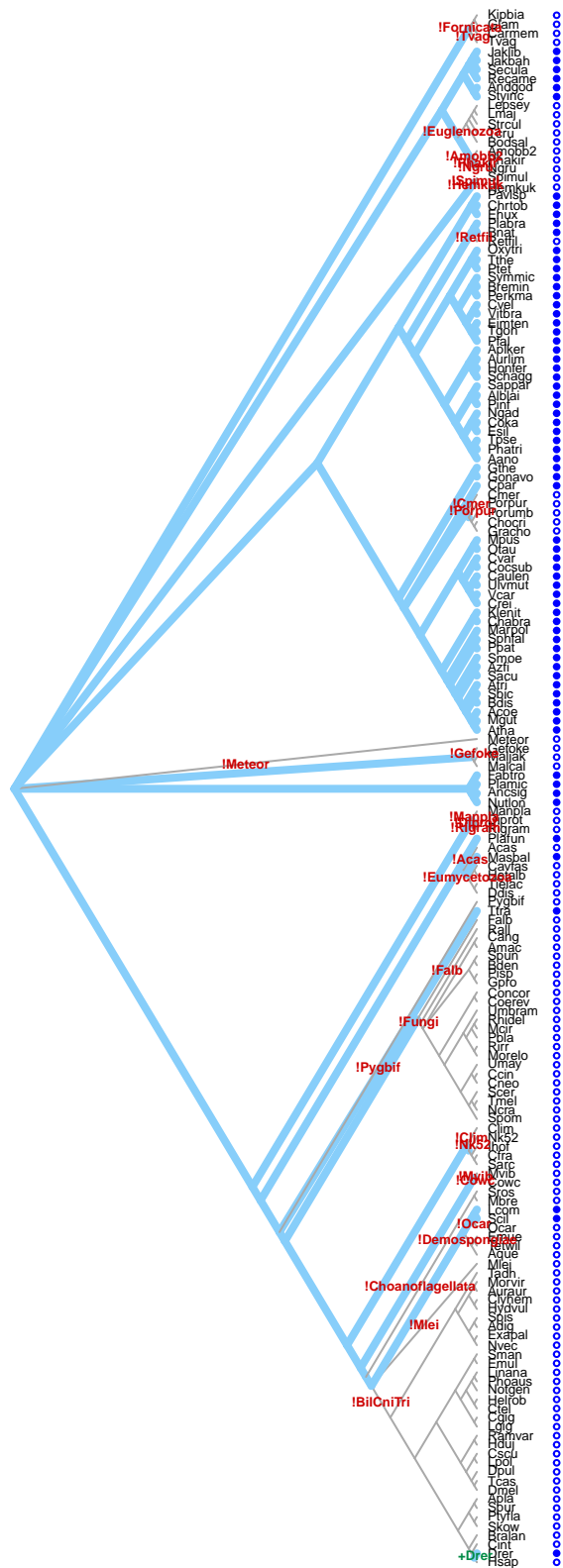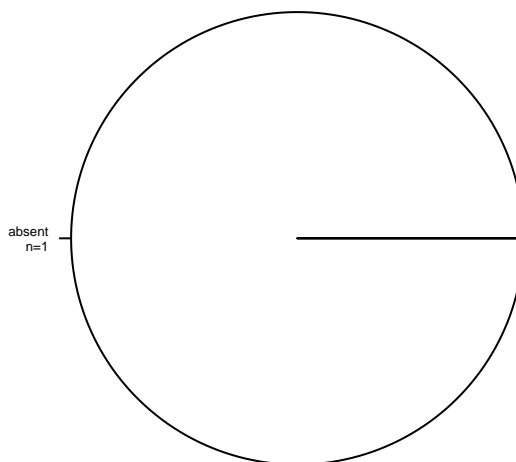
Histone,RhoGEF,Ra
n=1

Histone,RhoGEF,PH,RasGEF_N,RasGEF
n=19

Histone,Histone_H2A_C,Macro
n=2

Histone,Macro
n=3

Histone,PH,RasGEF_N,RasGEF
n=1

Histone,RasGEF
n=1

Histone,RhoGEF
n=1

Histone,RhoGEF,PH
n=1

Histone,RhoGEF,PH,RasGEF
n=1

Histone,RhoGEF,PH,RasGEF_N
n=2

zf–CCHH,Histone,Histone_H2A_C	zf–CCHH,Histone,Histone_H2A_C	n=1
LRR_9,Histone	LRR_9,Histone	n=1
Histone,RhoGEF,RasGEF	Histone,RhoGEF,RasGEF	n=1
Histone,RhoGEF,PH,RasGEF_N,RasGEF	Histone,RhoGEF,PH,RasGEF_N,RasGEF	n=19
Histone,RhoGEF,PH,RasGEF_N	Histone,RhoGEF,PH,RasGEF_N	n=2
Histone,RhoGEF,PH,RasGEF	Histone,RhoGEF,PH,RasGEF	n=1
Histone,RhoGEF,PH	Histone,RhoGEF,PH	n=1
Histone,RhoGEF	Histone,RhoGEF	n=1
Histone,RasGEF	Histone,RasGEF	n=1
Histone,PH,RasGEF_N,RasGEF	Histone,PH,RasGEF_N,RasGEF	n=1
Histone,Macro	Histone,Macro	n=3
Histone,Histone_H2A_C,Macro	Histone,Histone_H2A_C,Macro	n=2
Histone,Histone_H2A_C	Histone,Histone_H2A_C	n=26
Histone	Histone	n=6

Frequency

Histone.HG1.10
H2AC6/H2AC7/H2AC8/H2AC11/H2AC12/H2AC13/H2AC14/H2AC15/H2AC16/H2AC17/H2AC18/H2AC19

Gain: Rirr,NA
Presence Eukaryota prob = 0.99
Present: 7
Losses: NA

absent | n=1

Frequency

Histone.HG1.11
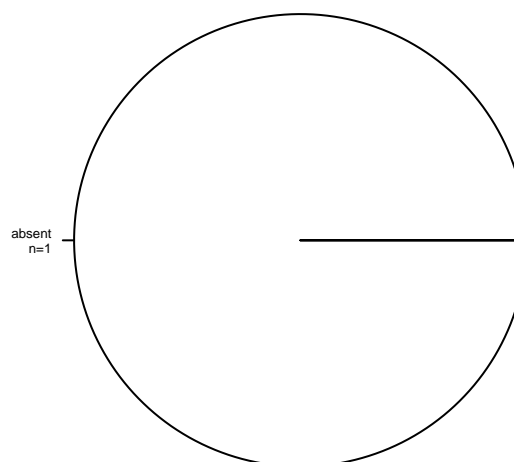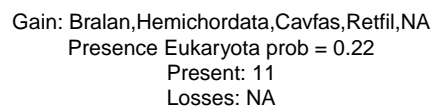4/H2AC6/H2AC7/H2AC8/H2AC11/H2AC12/H2AC13/H2AC14/H2AC15/H2AC16/H2AC17/H2AC18/H2AC19
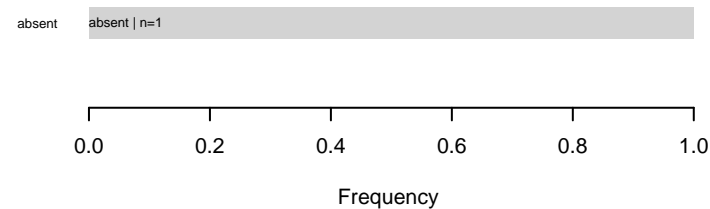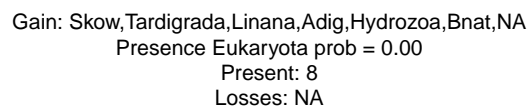
Gain: Lcom,Clim,Rhodophyta,NA
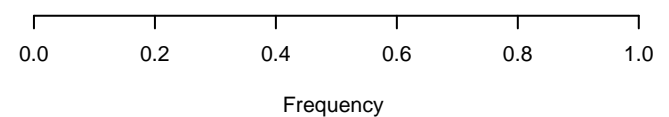Presence Eukaryota prob = 1.00
Present: 42
Losses: NA

Histone.HG1.12
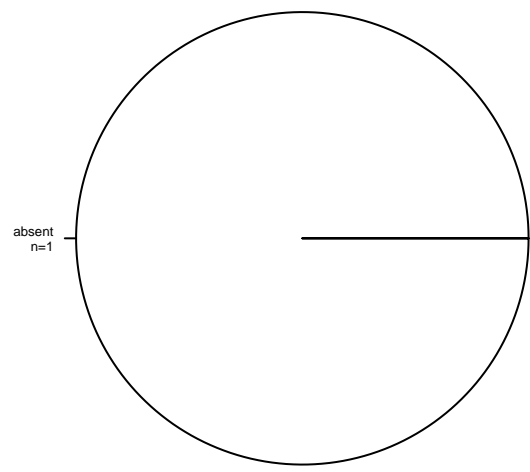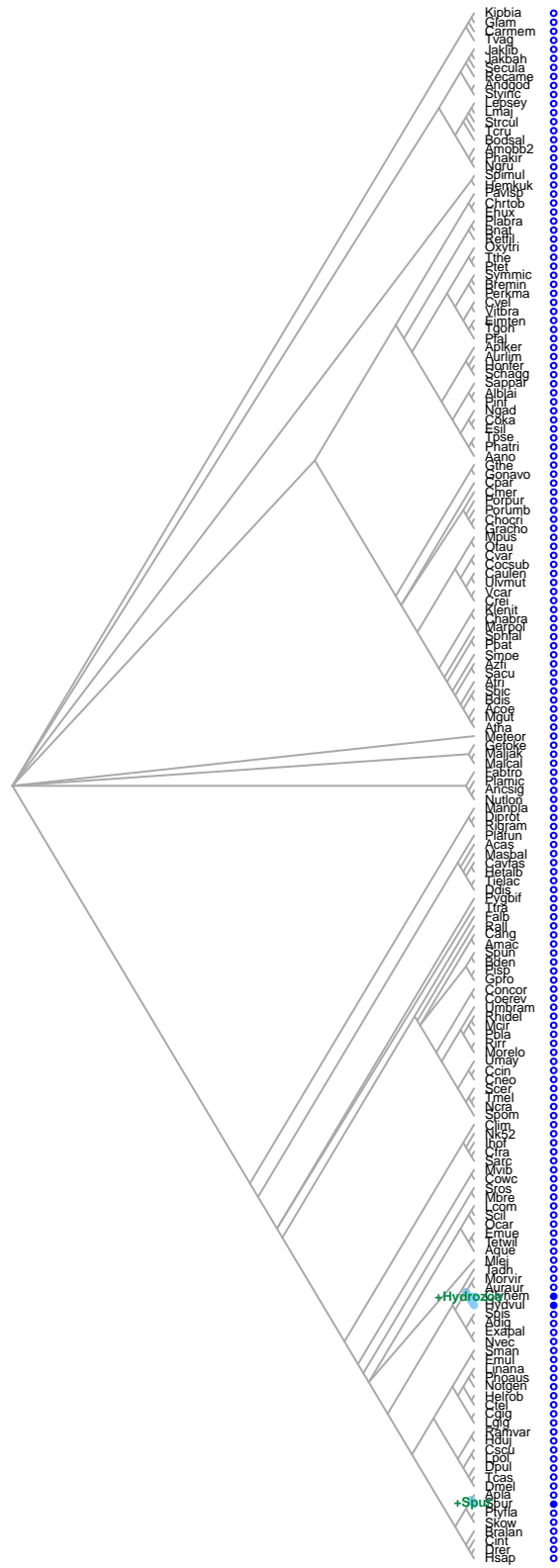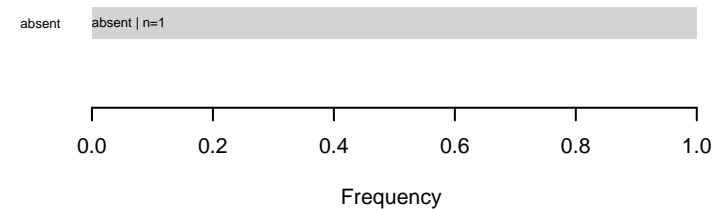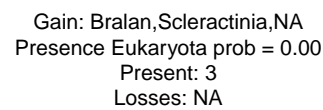4/H2AC6/H2AC7/H2AC8/H2AC11/H2AC12/H2AC13/H2AC14/H2AC15/H2AC16/H2AC17/H2AC18/H2AC19

Gain: Drer,NA
Presence Eukaryota prob = 1.00
Present: 70
Losses: NA

absent
n=1
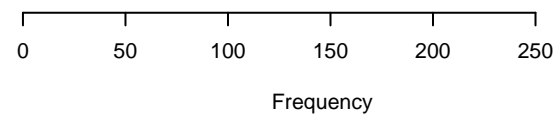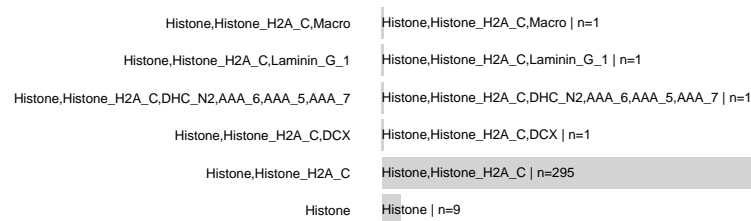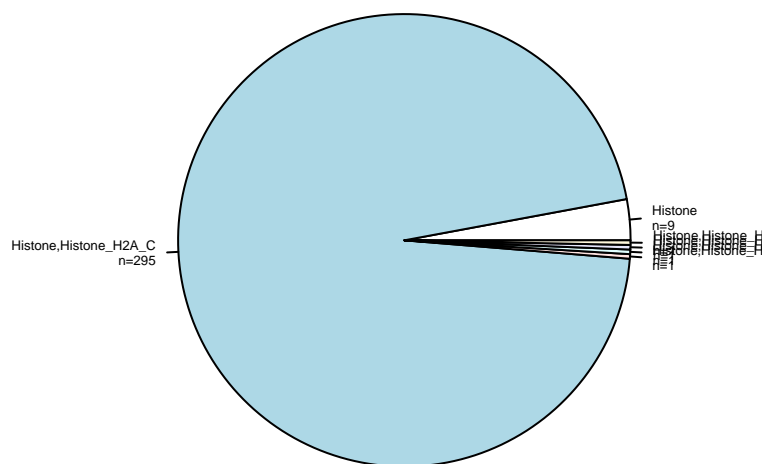
absent   absent | n=1

Frequency

Histone.HG1.13
H2AC6/H2AC7/H2AC8/H2AC11/H2AC12/H2AC13/H2AC14/H2AC15/H2AC16/H2AC17/H2AC18/H2AC19

Gain: Bralan,Hemichordata,Cavfas,Retfil,NA
Presence Eukaryota prob = 0.22
Present: 11
Losses: NA

absent
n=1

absent   absent | n=1

Frequency

Histone.HG1.14
...4/H2AC6/H2AC7/H2AC8/H2AC11/H2AC12/H2AC13/H2AC14/H2AC15/H2AC16/H2AC17/H2AC18/H2AC19...

Gain: Skow,Tardigrada,Linana,Adig,Hydrozoa,Bnat,NA
Presence Eukaryota prob = 0.00
Present: 8
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG1.15
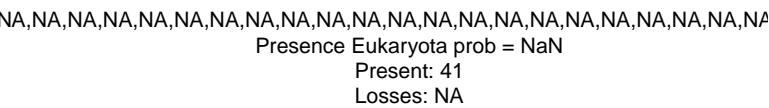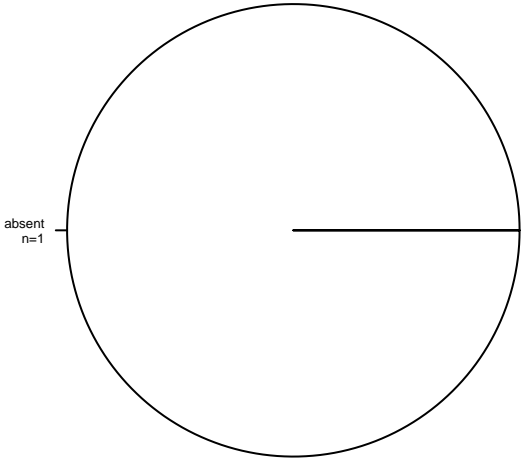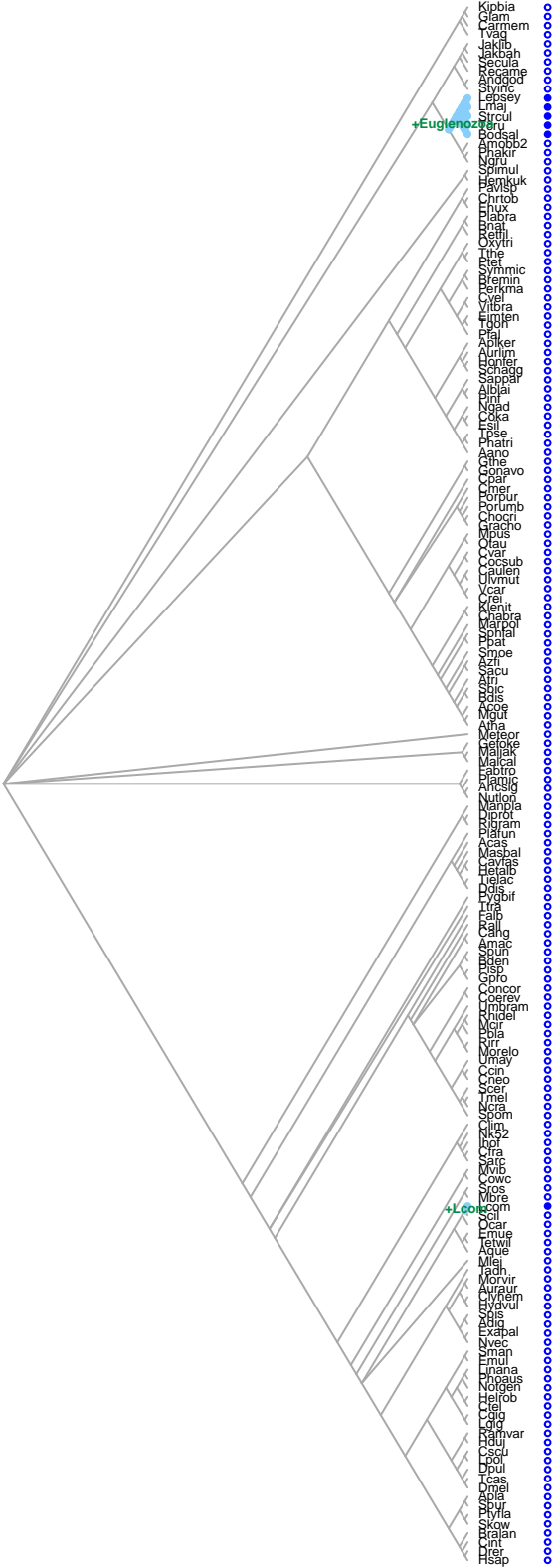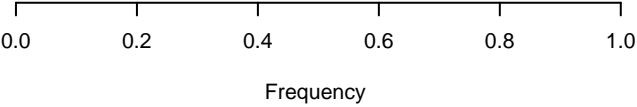4/H2AC6/H2AC7/H2AC8/H2AC11/H2AC12/H2AC13/H2AC14/H2AC15/H2AC16/H2AC17/H2AC18/H2AC19

Gain: Spur,Hydrozoa,NA
Presence Eukaryota prob = 0.00
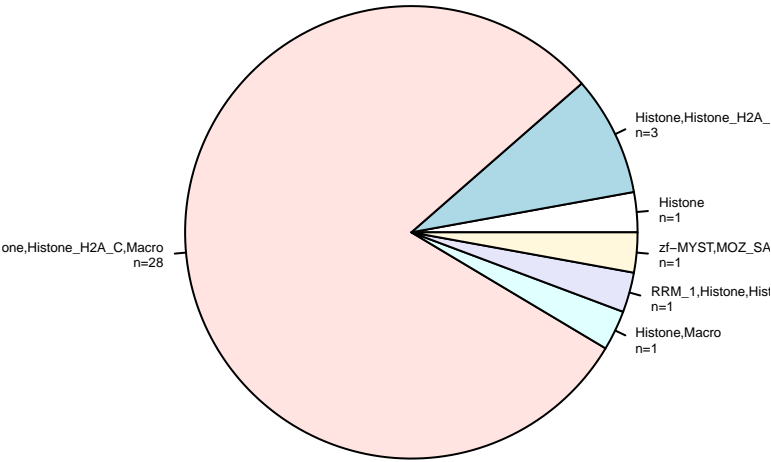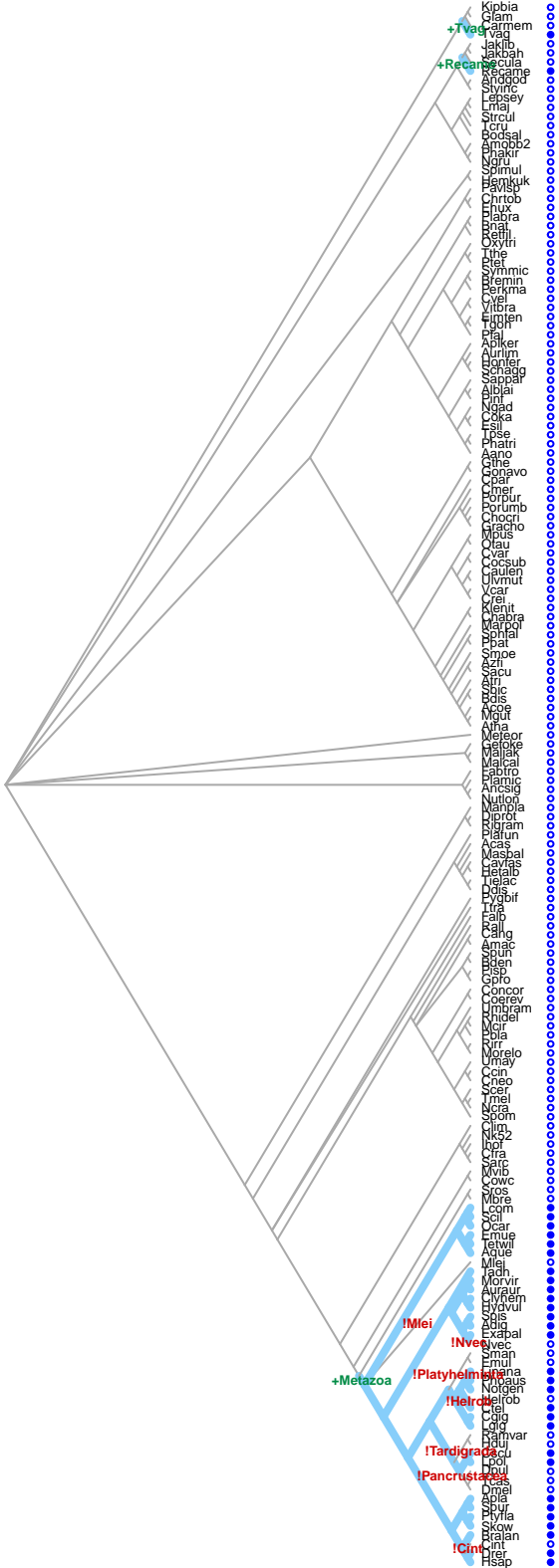Present: 3
Losses: NA

absent
n=1

absent   absent | n=1

Frequency

Histone.HG1.16
4/H2AC6/H2AC7/H2AC8/H2AC11/H2AC12/H2AC13/H2AC14/H2AC15/H2AC16/H2AC17/H2AC18/H2AC19/

Gain: Bralan,Scleractinia,NA
Presence Eukaryota prob = 0.00
Present: 3
Losses: NA

NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

Presence Eukaryota prob = NaN

Present: 41

Losses: NA

Histone,Histone_H2A_C,Macro   Histone,Histone_H2A_C,Macro | n=1

Histone,Histone_H2A_C,Laminin_G_1   Histone,Histone_H2A_C,Laminin_G_1 | n=1

Histone,Histone_H2A_C,DHC_N2,AAA_6,AAA_5,AAA_7   Histone,Histone_H2A_C,DHC_N2,AAA_6,AAA_5,AAA_7 | n=1

Histone,Histone_H2A_C,DCX   Histone,Histone_H2A_C,DCX | n=1

Histone,Histone_H2A_C   Histone,Histone_H2A_C | n=295

Histone   Histone | n=9

Frequency

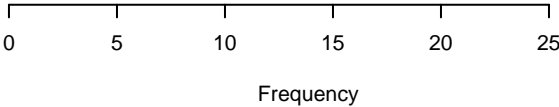**Histone.HG1.2**
like:H2AZ1/H2AZ2

Gain: Lcom,Euglenozoa,NA
Presence Eukaryota prob = 0.00
Present: 6
Losses: NA

Histone.HG1.3
MACROH2A1/MACROH2A2

Gain: Metazoa,Recame,Tvag,NA
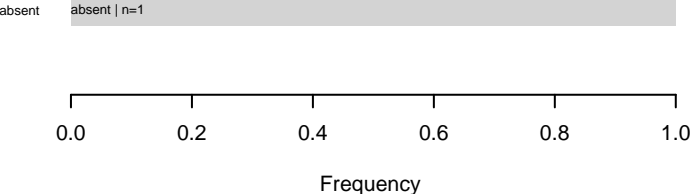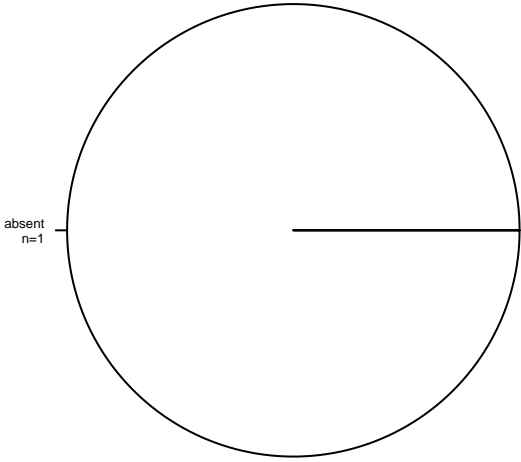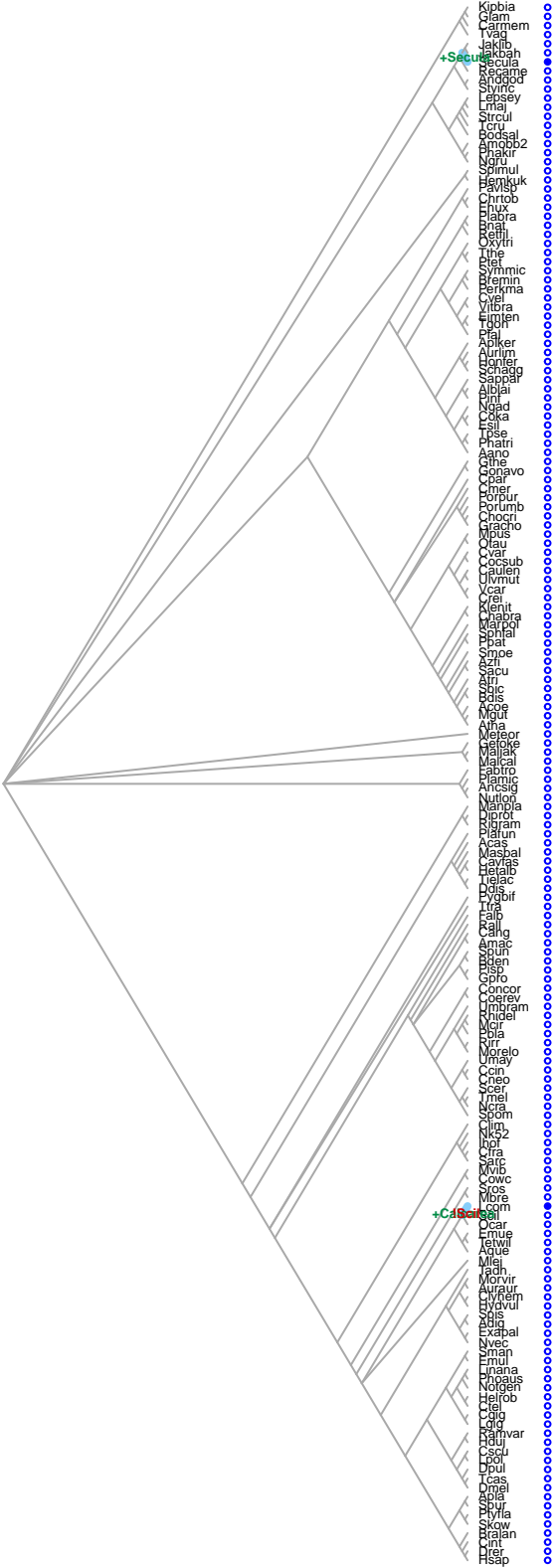Presence Eukaryota prob = 0.00
Present: 31
Losses: NA

Histone.HG1.4
like:SOS1/SOS2
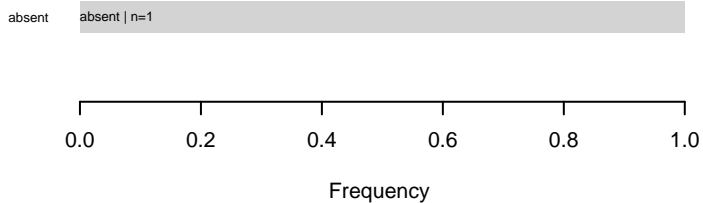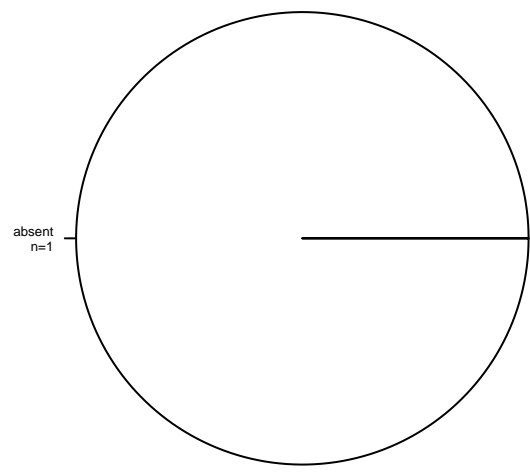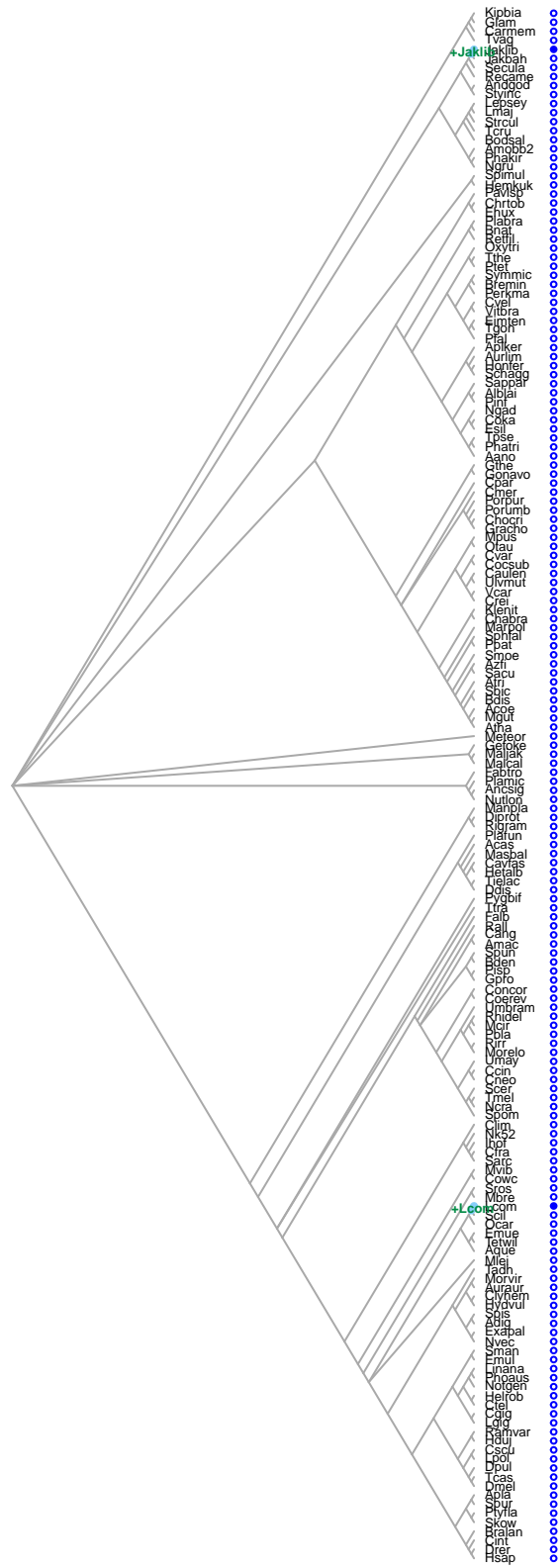
Gain: Lcom,Jaklib,NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

absent
n=1

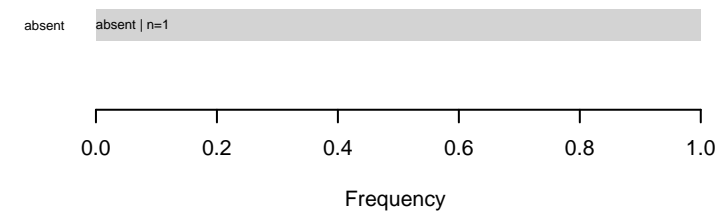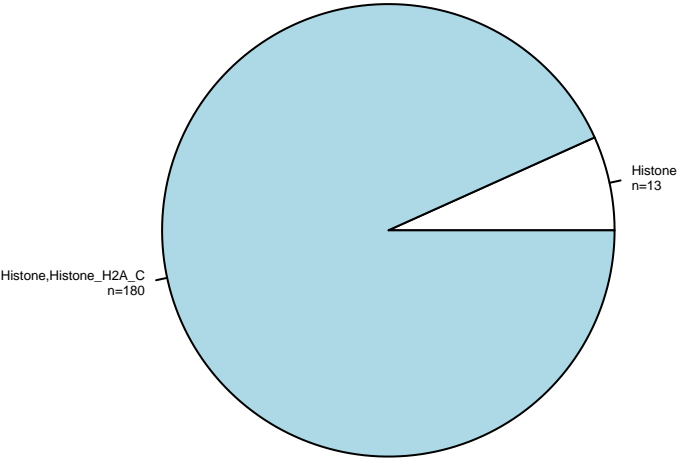absent   absent | n=1

Frequency

Histone.HG1.5
like:SOS1/SOS2

Gain: Calcarea,Secula,NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

absent
n=1

absent | absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

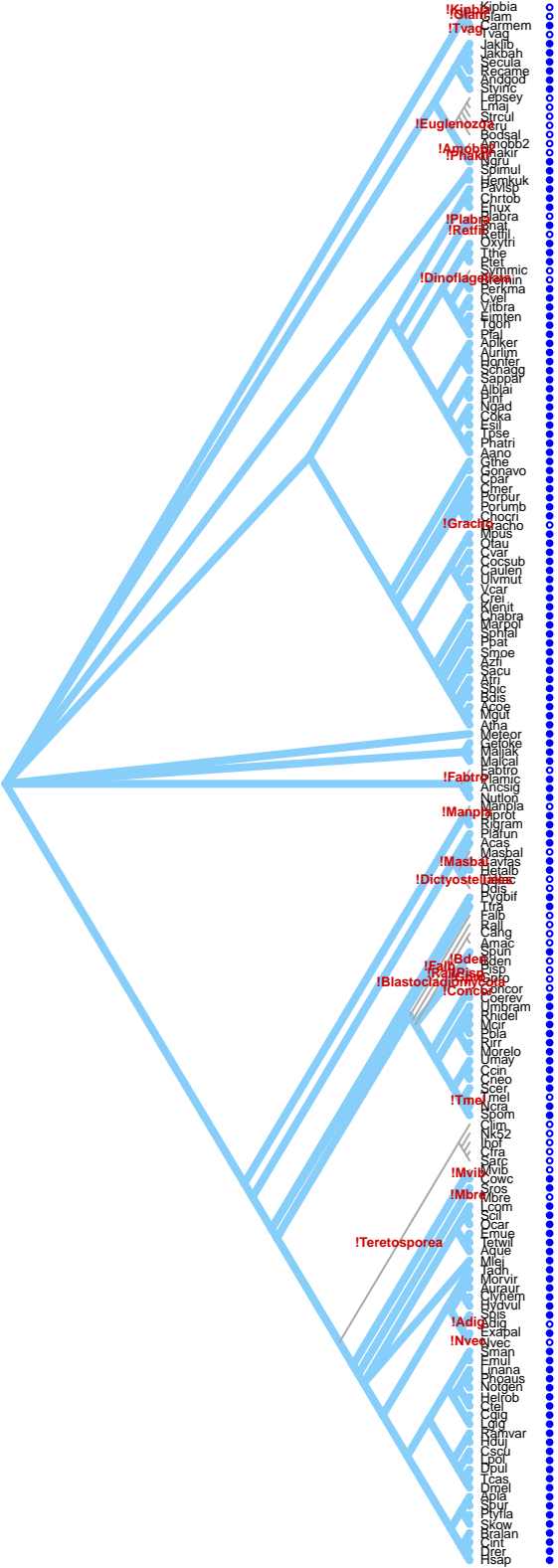**Histone.HG1.6**
like:H2AZ1/H2AZ2

+Dinoflagellata

+Acoe
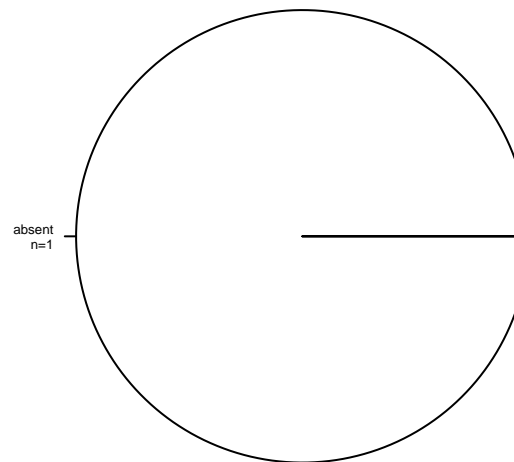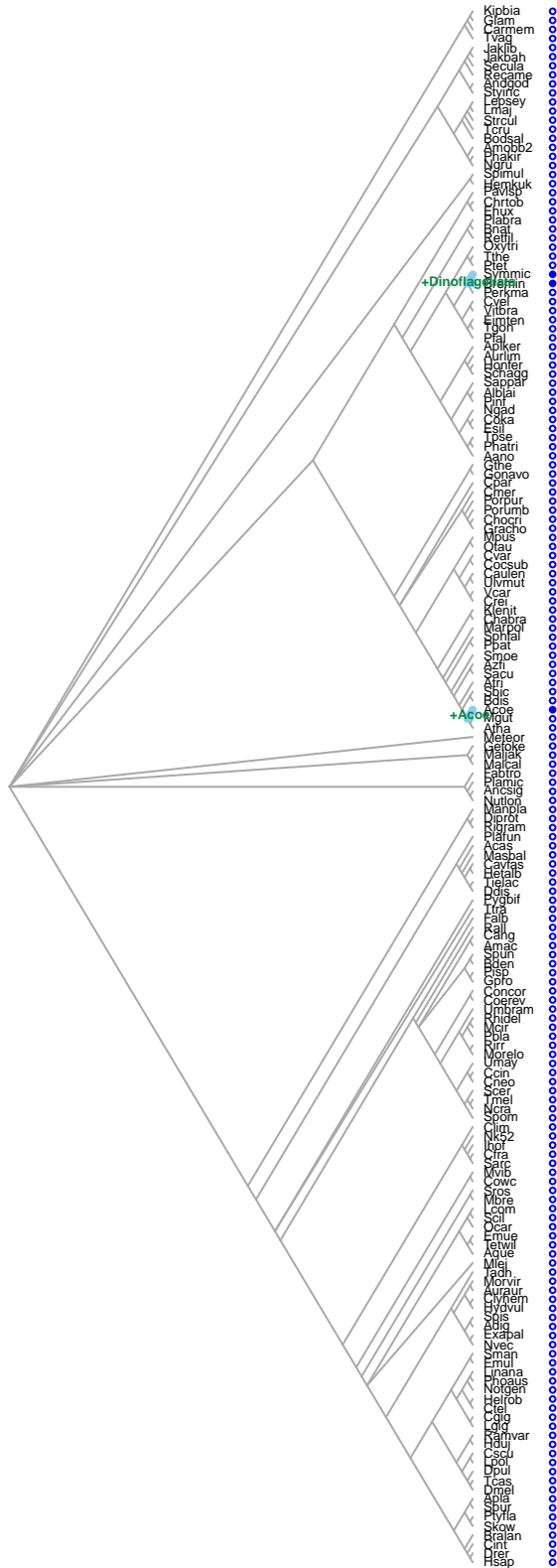
absent
n=1

absent | n=1
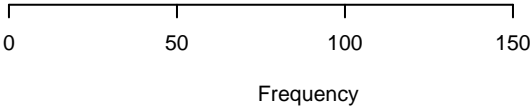
Gain: Acoe,Dinoflagellata,NA
Presence Eukaryota prob = 0.00
Present: 3
Losses: NA

absent	

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG1.7
H2AZ1/H2AZ2

Gain: NA
Presence Eukaryota prob = 1.00
Present: 134
Losses: NA

Histone
n=13

Histone,Histone_H2A_C
n=180

Histone,Histone_H2A_C | Histone,Histone_H2A_C | n=180

Histone | Histone | n=13

| 0 | 50 | 100 | 150 |

Frequency

Histone.HG1.9
4/H2AC6/H2AC7/H2AC8/H2AC11/H2AC12/H2AC13/H2AC14/H2AC15/H2AC16/H2AC17/H2AC18/H2AC19/
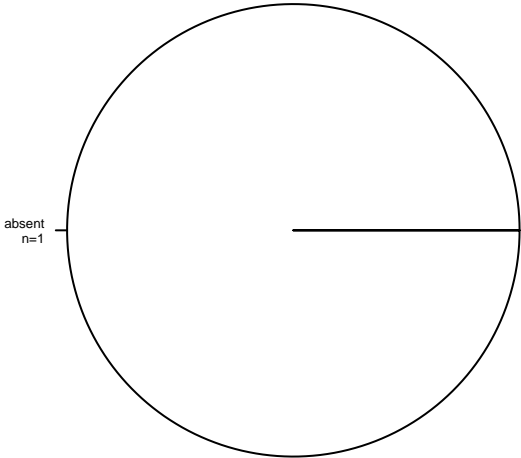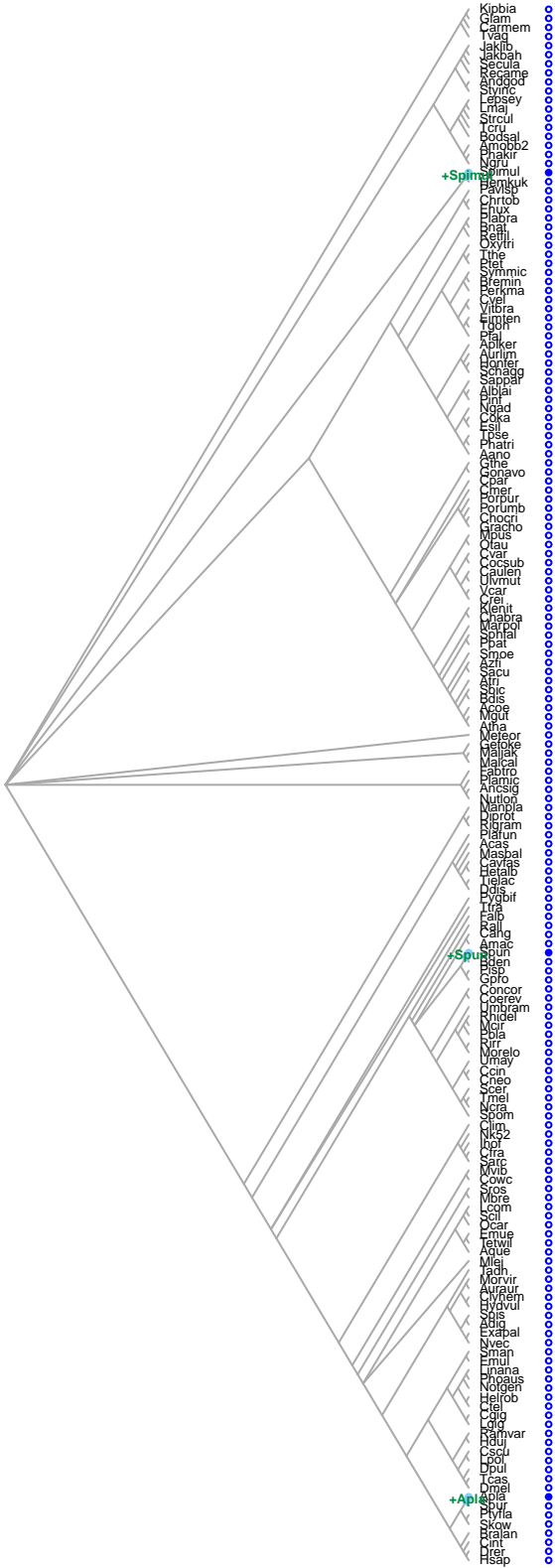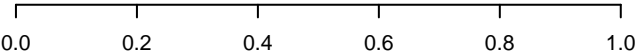
Gain: Apla,Spun,Spimul,NA
Presence Eukaryota prob = 0.00
Present: 3
Losses: NA

Histone.HG10.0
NA
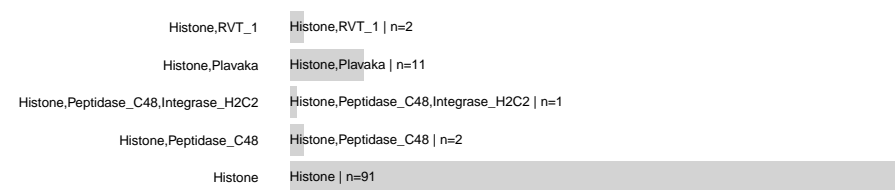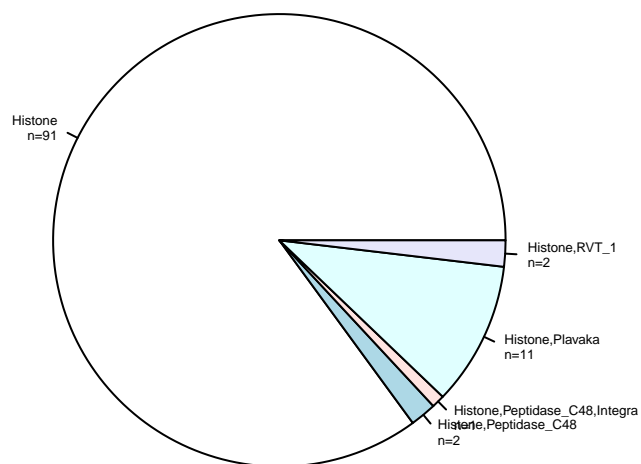
Histone
n=91

Histone,RVT_1
n=2

Histone,Plavaka
n=11

Histone,Peptidase_C48,Integra
Histone,Peptidase_C48
n=2

Histone,RVT_1   Histone,RVT_1 | n=2

Histone,Plavaka   Histone,Plavaka | n=11

Histone,Peptidase_C48,Integrase_H2C2   Histone,Peptidase_C48,Integrase_H2C2 | n=1

Histone,Peptidase_C48   Histone,Peptidase_C48 | n=2

Histone   Histone | n=91

0   20   40   60   80

Frequency

NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA
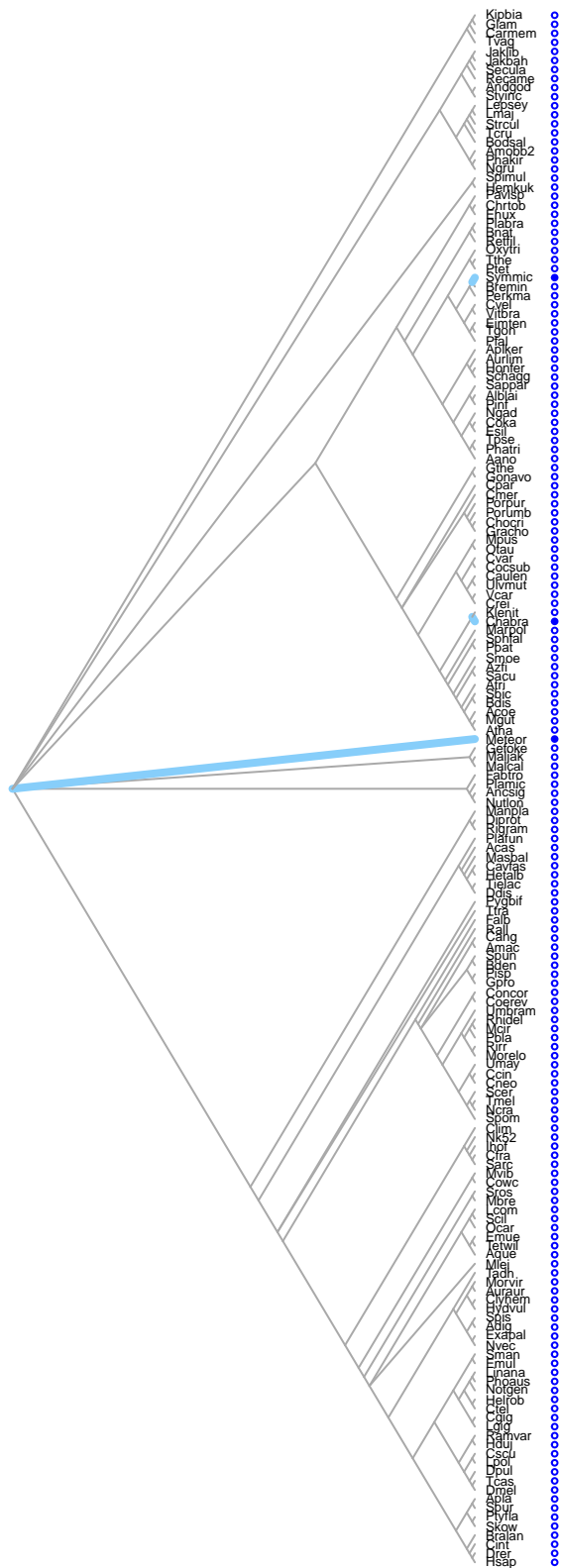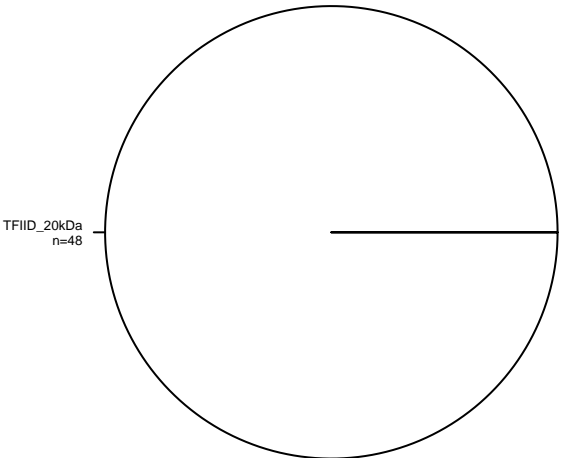Presence Eukaryota prob = NaN
Present: 3
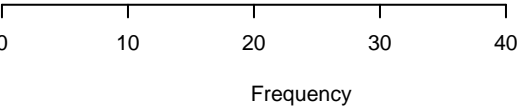Losses: NA

Histone.HG11.0
TAF12

Gain: Caulen,Tvag,NA
Presence Eukaryota prob = 1.00
Present: 47
Losses: NA
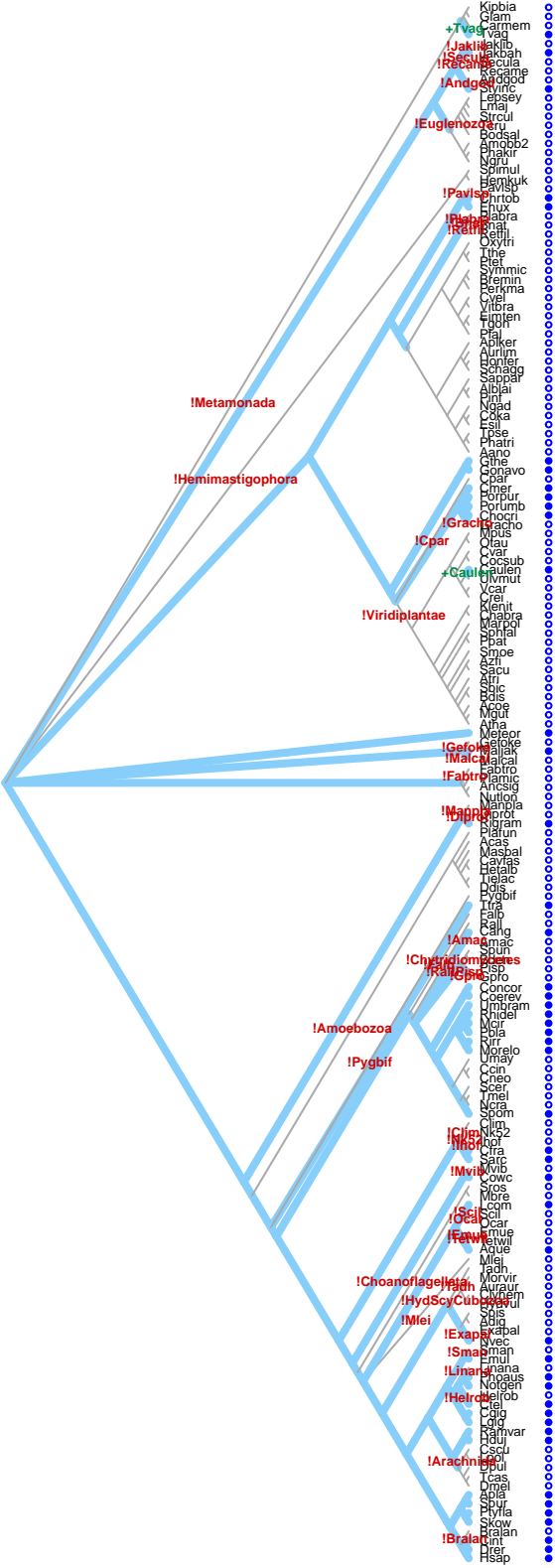
TFIID_20kDa
n=48

TFIID_20kDa   TFIID_20kDa | n=48

0	10	20	30	40

Frequency

Histone.HG12.0
TAF11/TAF11L3/TAF11L4/TAF11L5/TAF11L6/TAF11L7/TAF11L8/TAF11L9/TAF11L10/TAF11L13
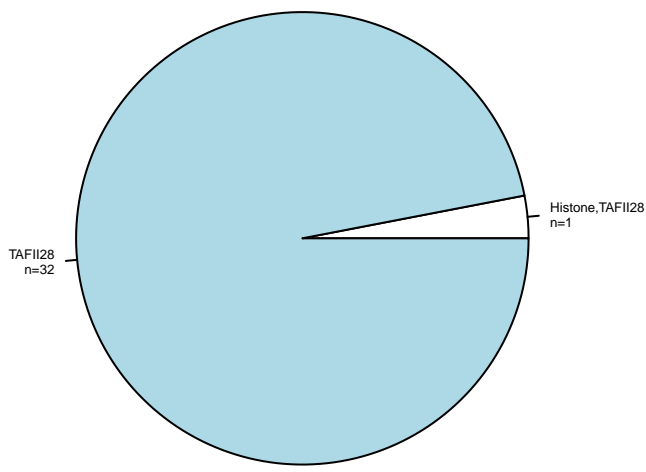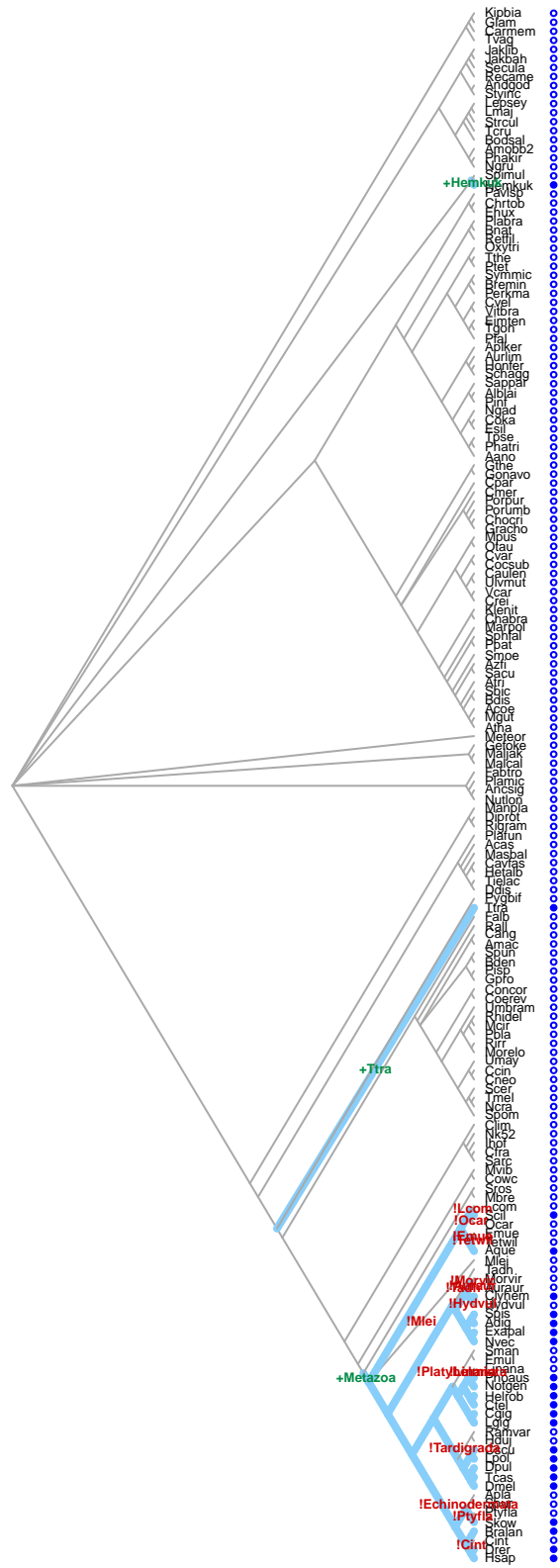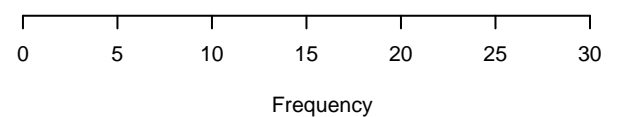
Gain: Metazoa,Ttra,Hemkuk,NA
Presence Eukaryota prob = 0.08
Present: 24
Losses: NA

Histone.HG13.0
NA

Gain: Gonavo,NA
Presence Eukaryota prob = 0.56
Present: 13
Losses: NA

CENP−X
n=15

CENP−X | n=15

Frequency
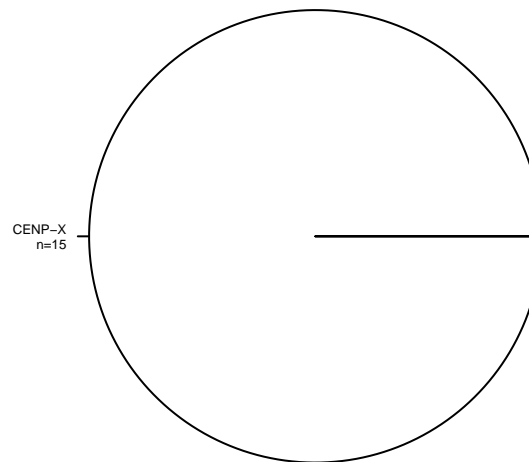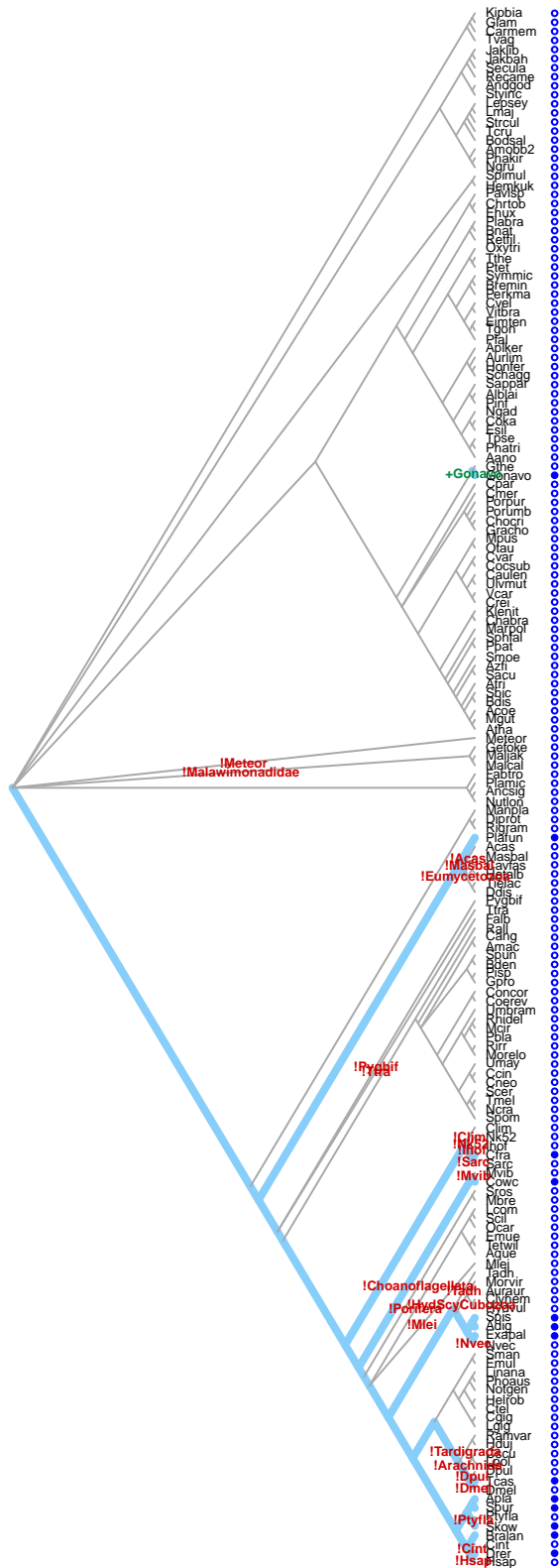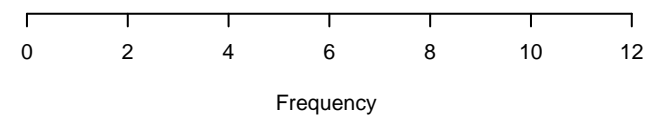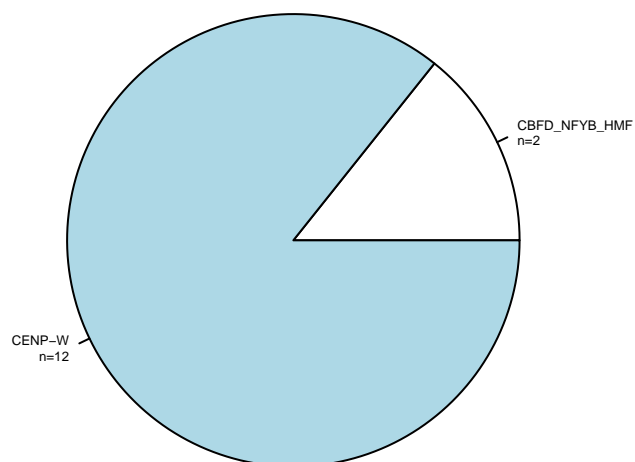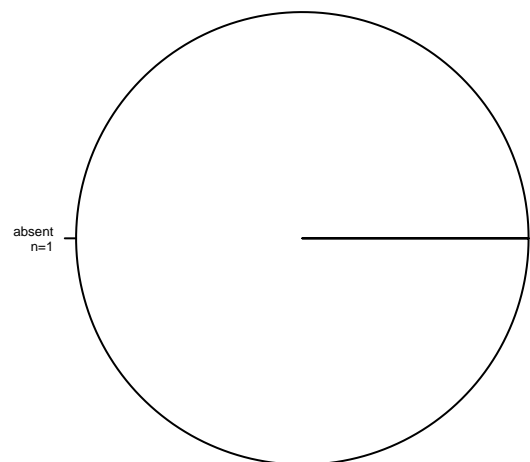
Histone.HG14.0
NA

Gain: Lpol,Honfer,NA
Presence Eukaryota prob = 0.77
Present: 14
Losses: NA

Histone.HG2.0
CENPA
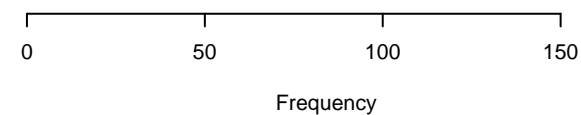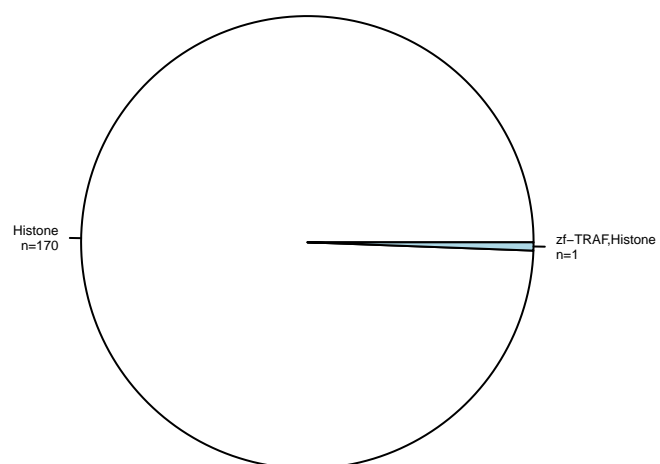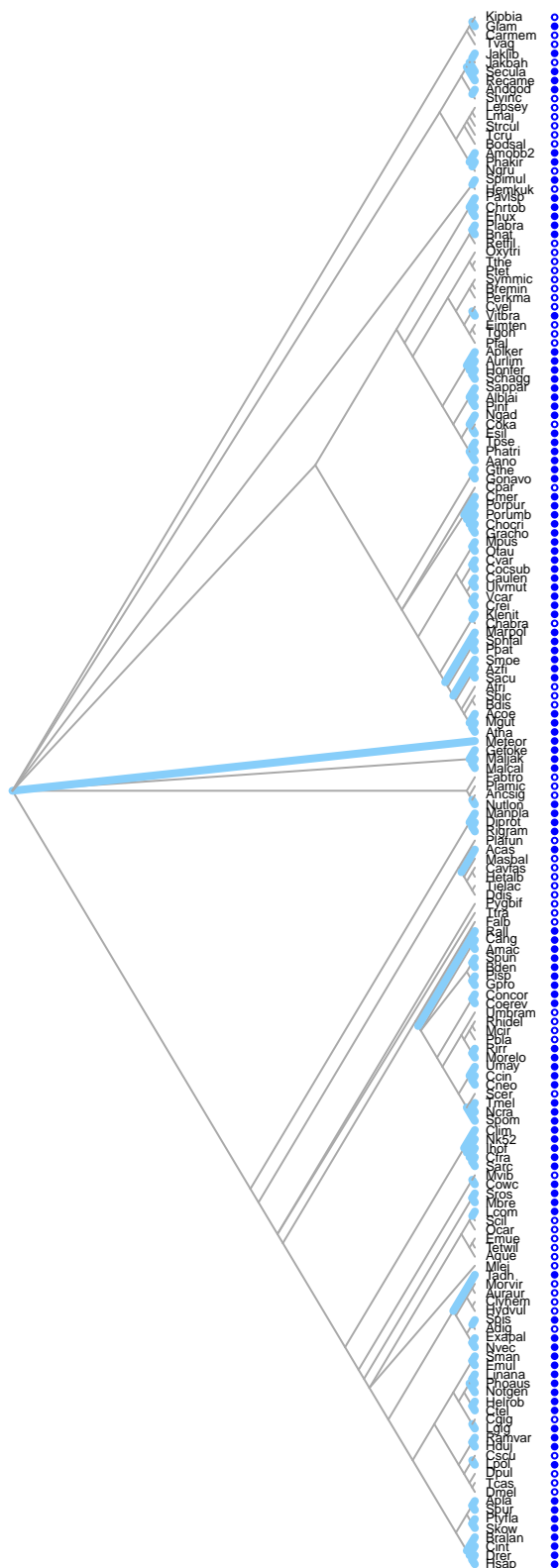
NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA
Presence Eukaryota prob = NaN
Present: 109
Losses: NA

Histone
n=170
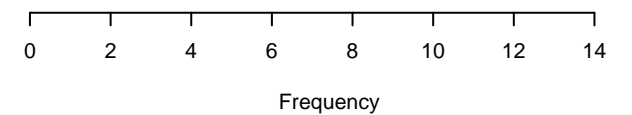
zf−TRAF,Histone
n=1

zf−TRAF,Histone   zf−TRAF,Histone | n=1

Histone   Histone | n=170

0   50   100   150

Frequency

Histone.HG2.1
2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3C
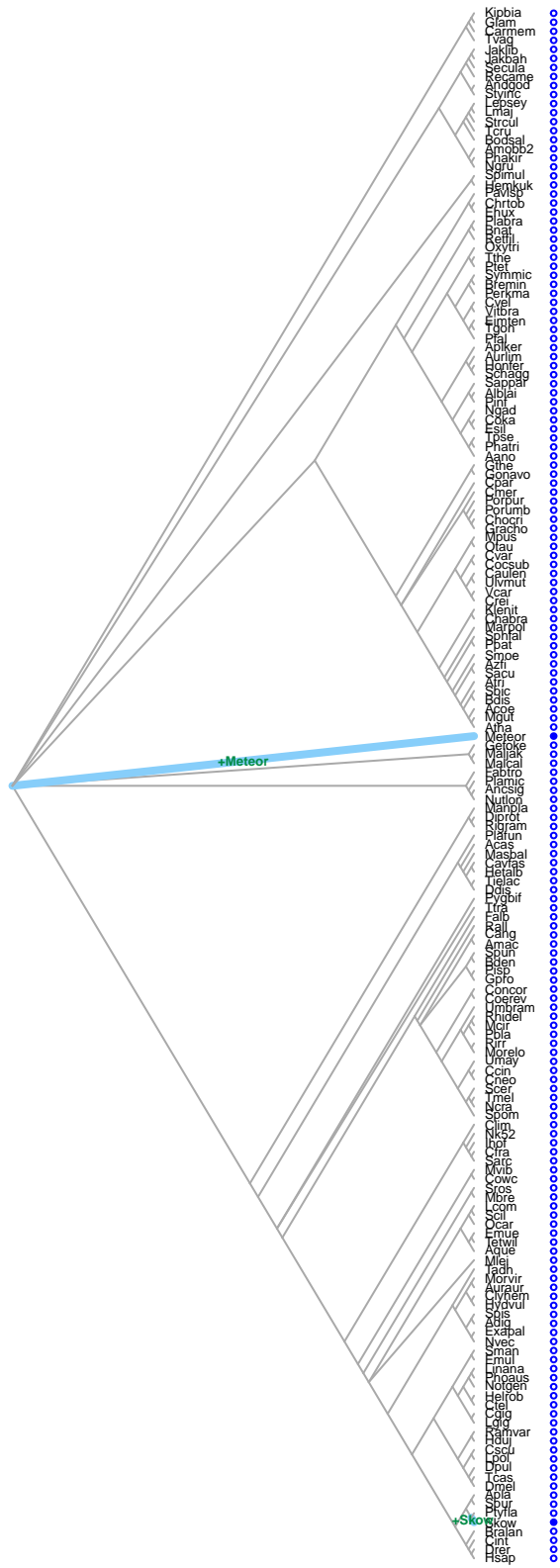
+Meteor

+Skow

Gain: Skow,Meteor,NA
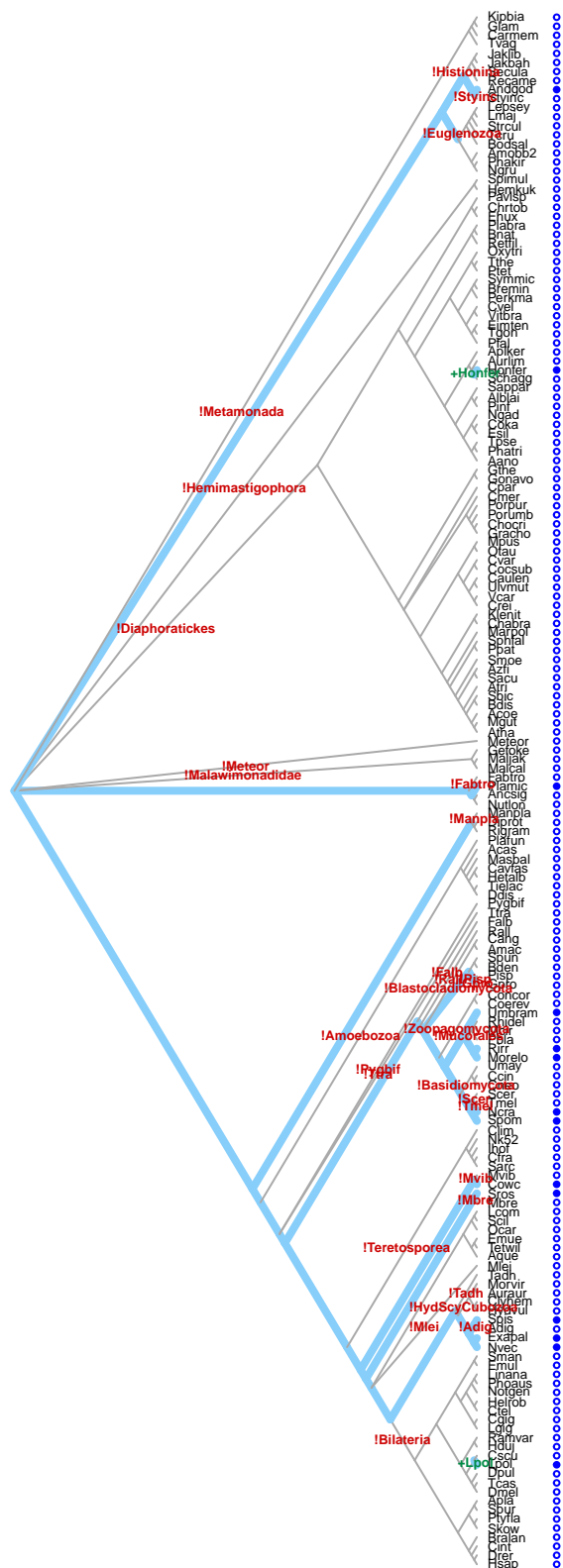Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG2.10
2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3(
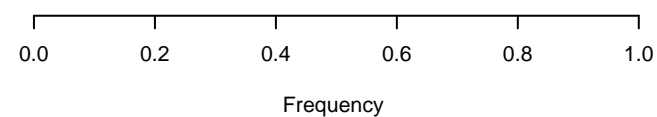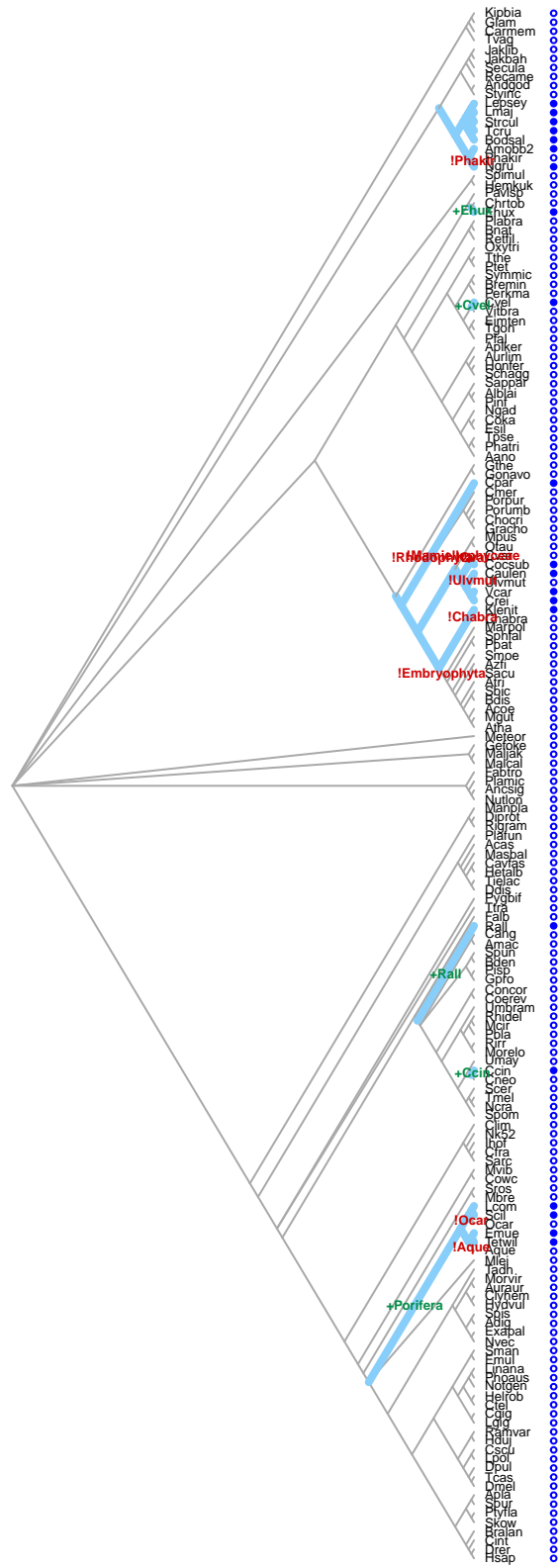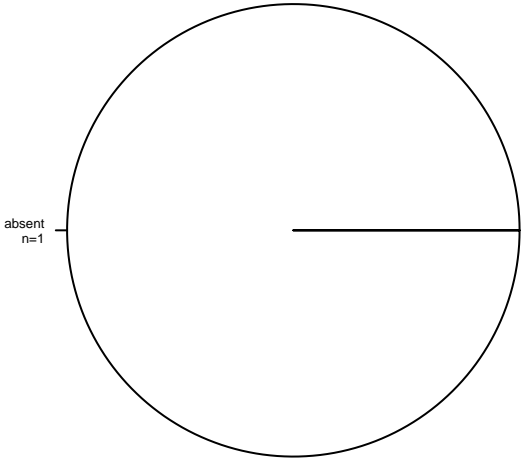
Gain: Porifera,Ccin,Rall,Cvel,Ehux,NA
Presence Eukaryota prob = 0.21
Present: 21
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG2.11
2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3(
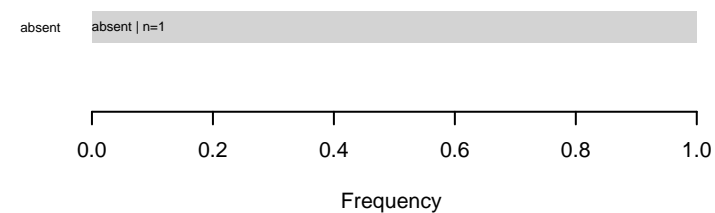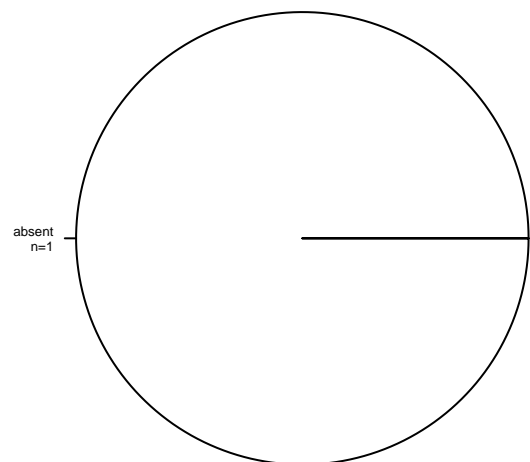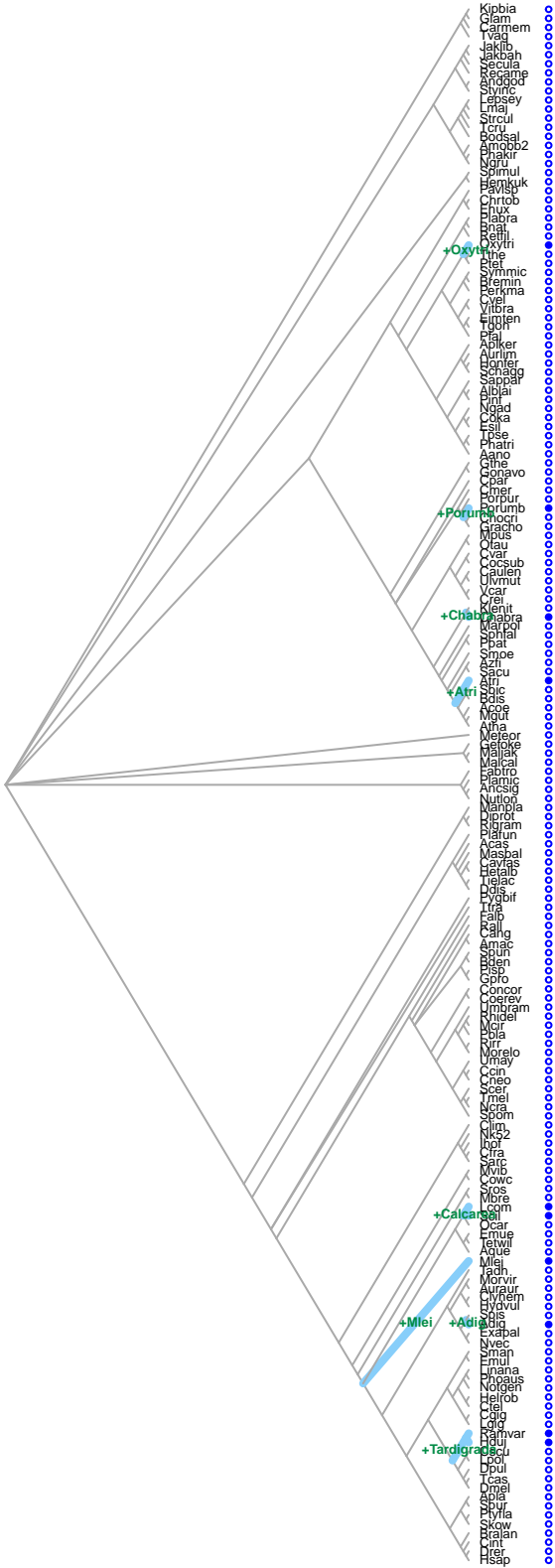
Gain: Tardigrada,Adig,Mlei,Calcarea,Atri,Chabra,Porumb,Oxytri,NA
Presence Eukaryota prob = 0.00
Present: 10
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG2.12
2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3C
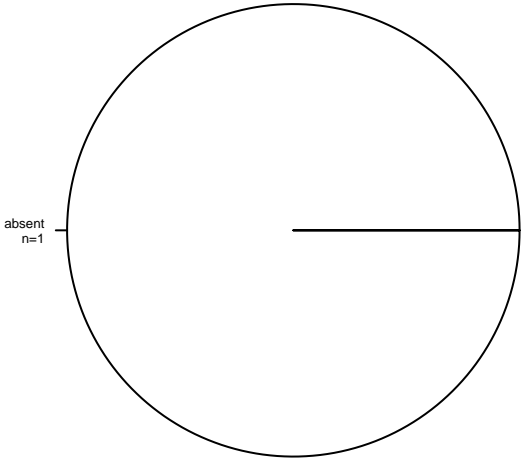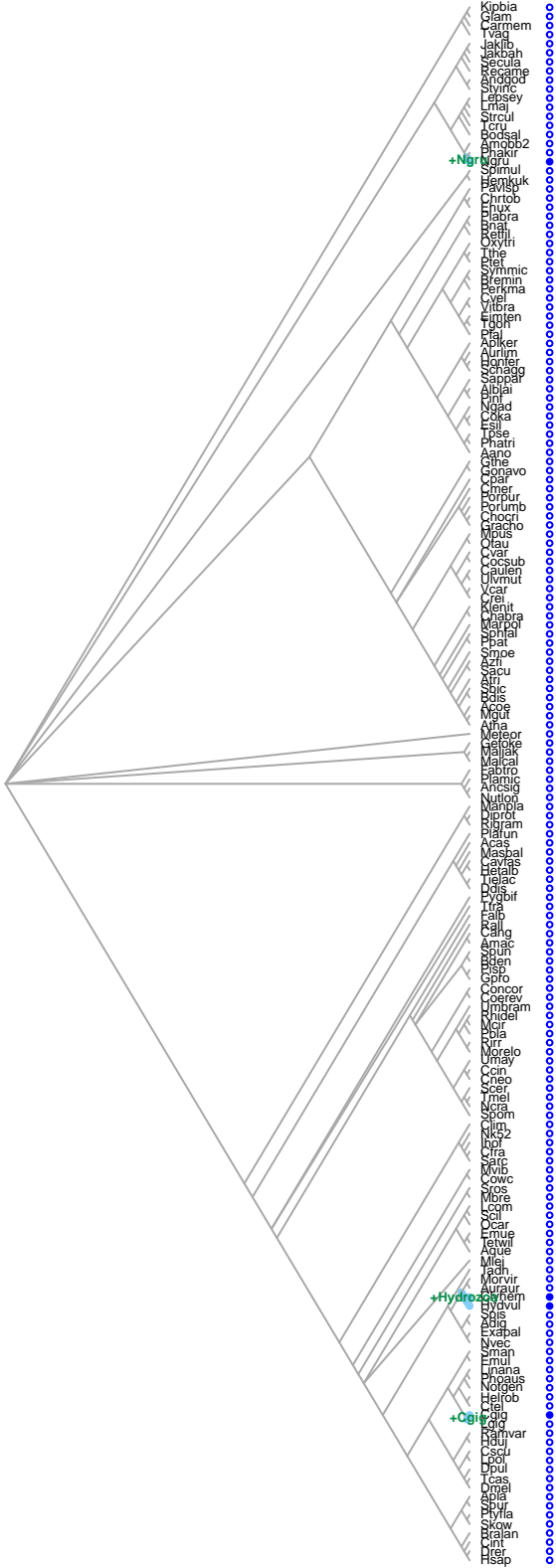
Gain: Cgig,Hydrozoa,Ngru,NA
Presence Eukaryota prob = 0.00
Present: 4
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG2.13
2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3(

Gain: NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG2.14
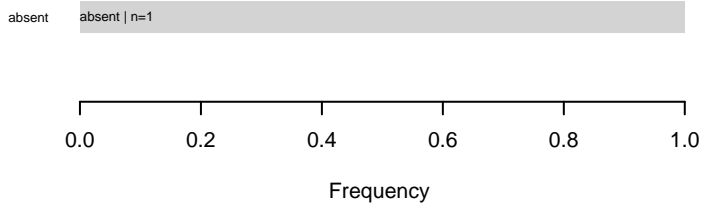
Gain: Tardigrada,Ocar,Cang,Cpar,Metamonada,NA
Presence Eukaryota prob = 0.00
Present: 7
Losses: NA

Histone.HG2.15
2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3(

Gain: Dinoflagellata,NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Gain: Dinoflagellata,NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

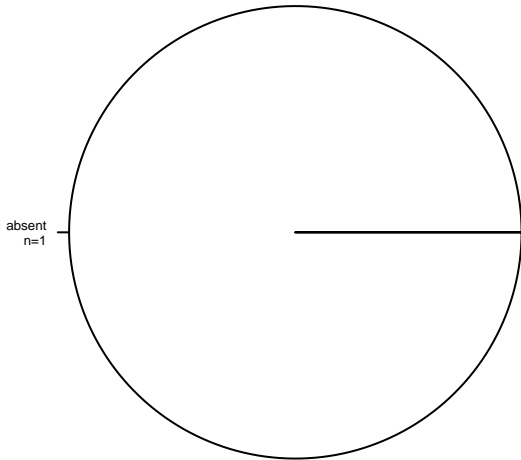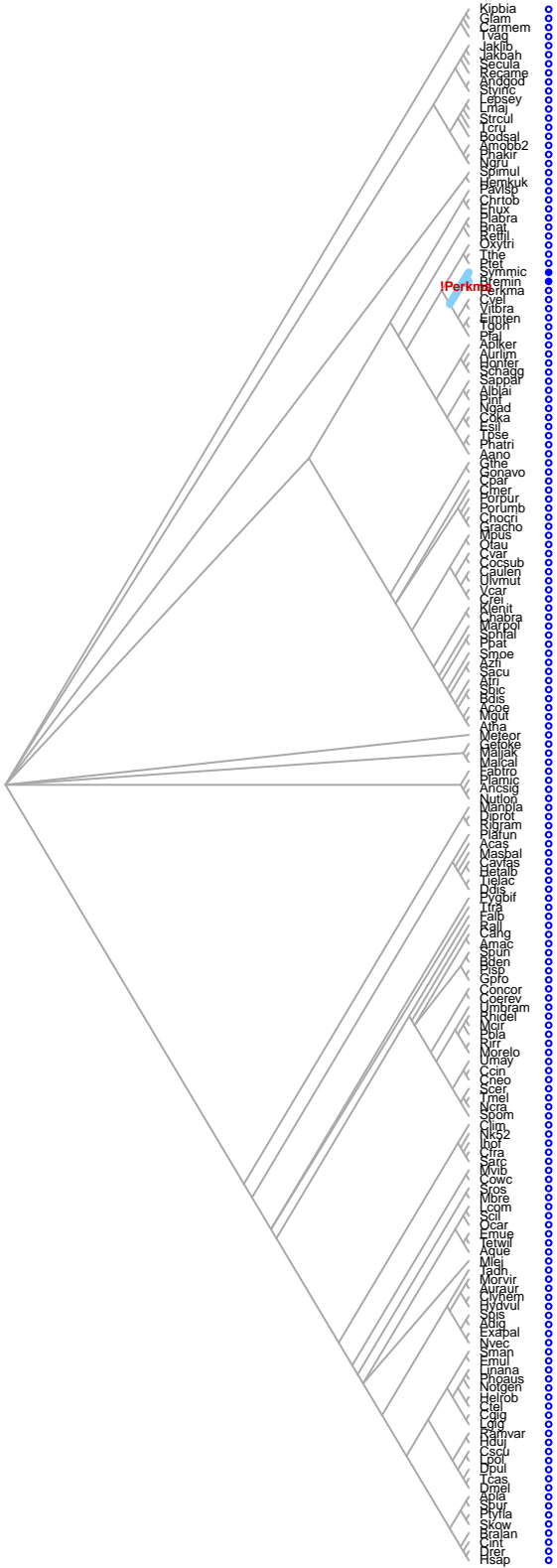absent
n=1

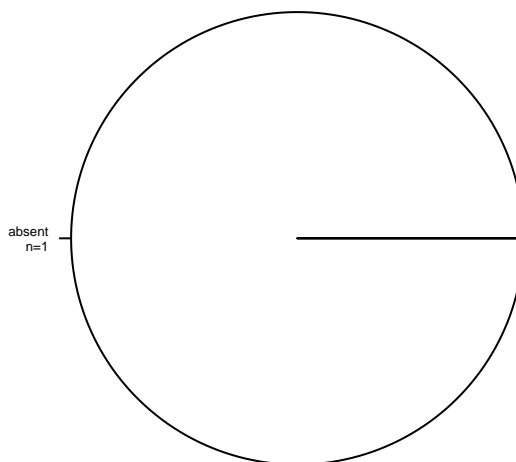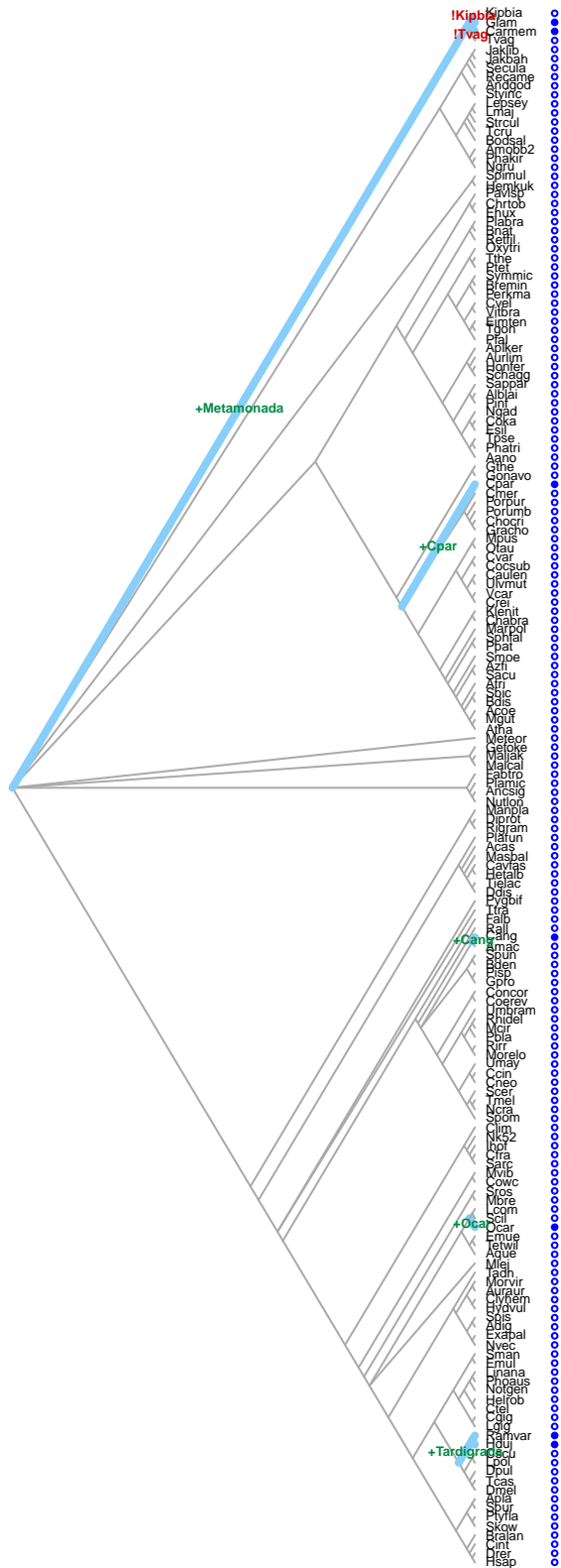absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0
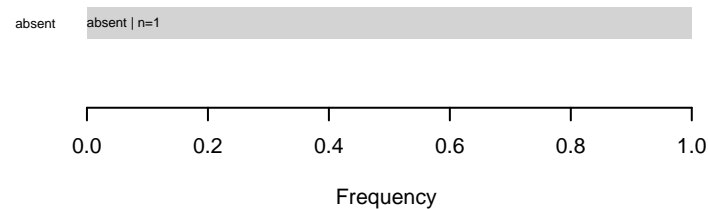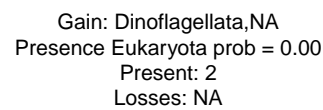
Frequency

Histone.HG2.17
H2/H3-3A/H3-3B/H3-4/H3-5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3C

Gain: NA
Presence Eukaryota prob = 0.94
Present: 12
Losses: NA

absent
n=1

absent   absent | n=1

Frequency

Histone.HG2.18

H2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3C

...azoa,Pancrustacea,Amoebozoa,Malcal,Bdis,Ulvmut,Porumb,Alveolata,Hemkuk,St...

Presence Eukaryota prob = 0.03

Present: 25

Losses: NA

absent | n=1

Frequency

Histone.HG2.2
H3–3A/H3–3B/H3–4/H3–5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3C14/

Gain: Skow,Helrob,Rall,Ancsig,Fabtro,Euphyllophyta,Trebouxiophyceae,Bnat,N
Presence Eukaryota prob = 0.26
Present: 27
Losses: NA

Histone.HG2.3
2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3C
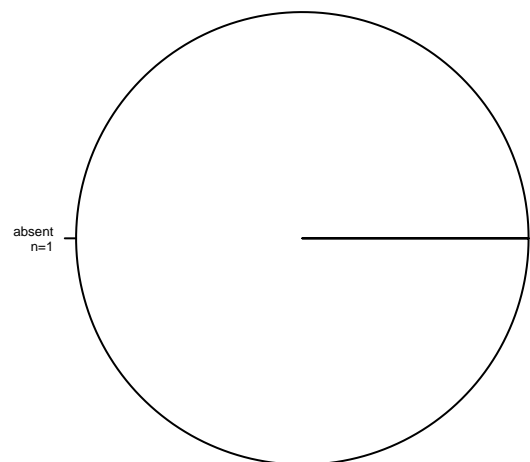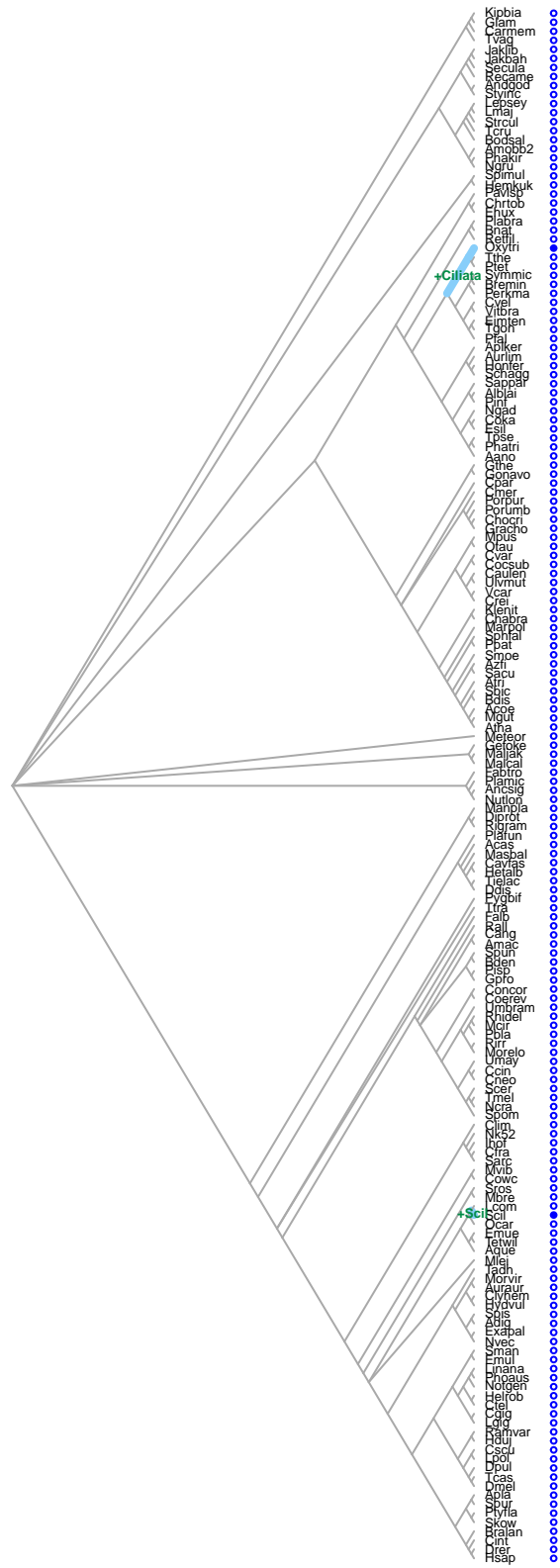
+Ciliata

+Scil

Gain: Scil,Ciliata,NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency
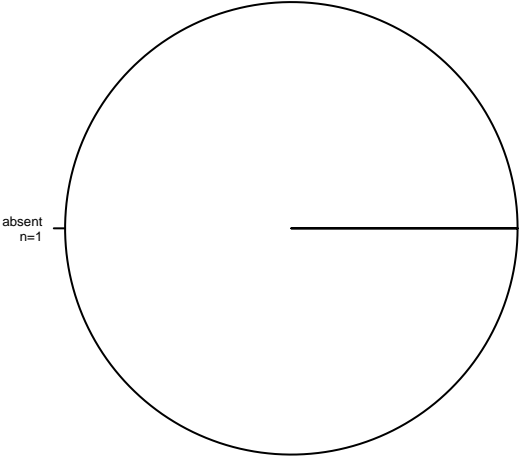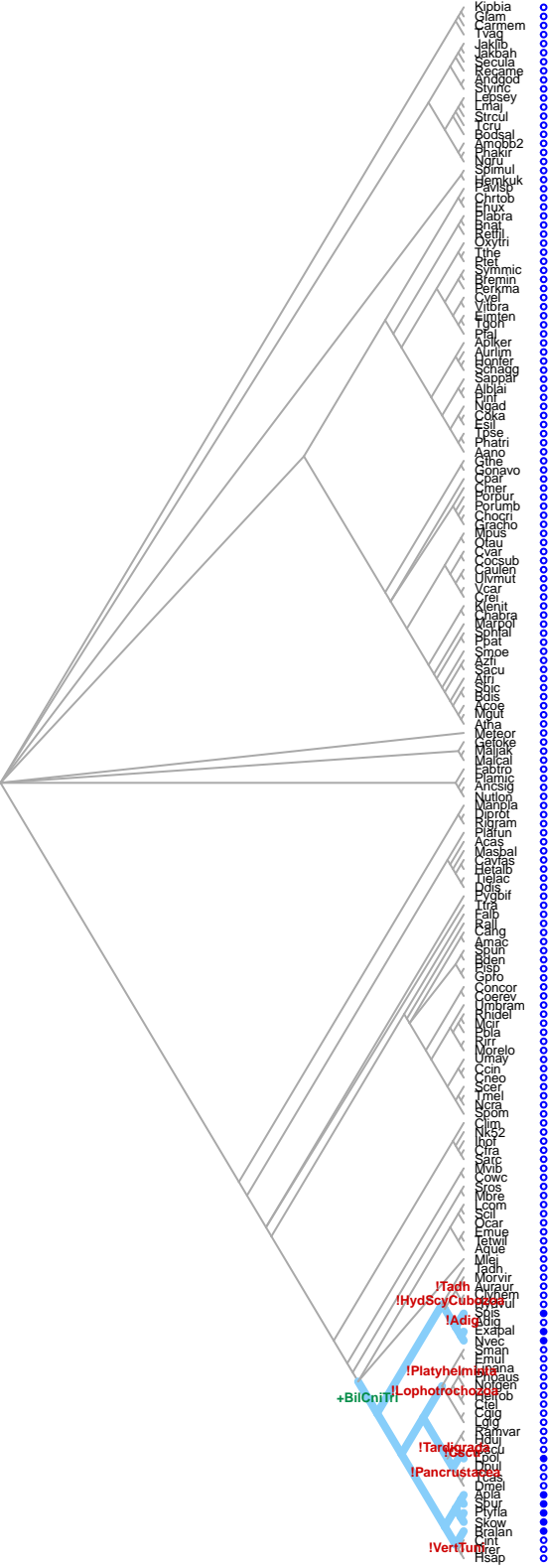
Gain: BilCniTri,NA

Presence Eukaryota prob = 0.00

Present: 9

Losses: NA

Frequency
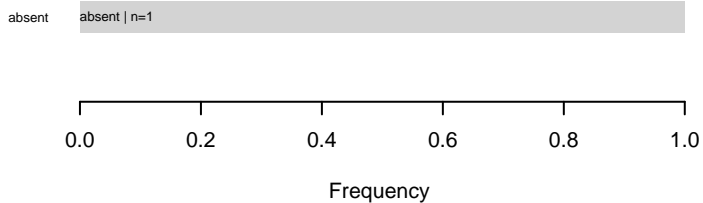
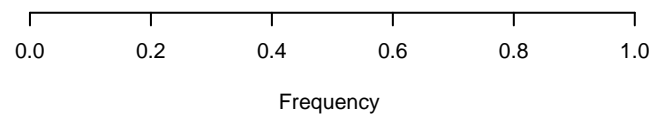**Histone.HG2.5**
3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3C14/H3

Histone
n=571

Exo_endo_phos_2
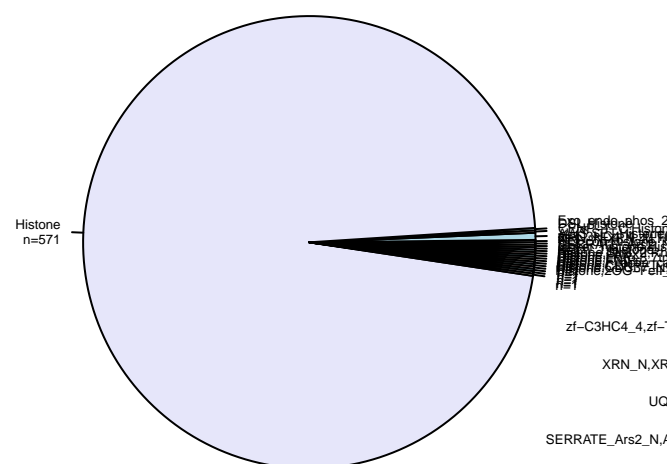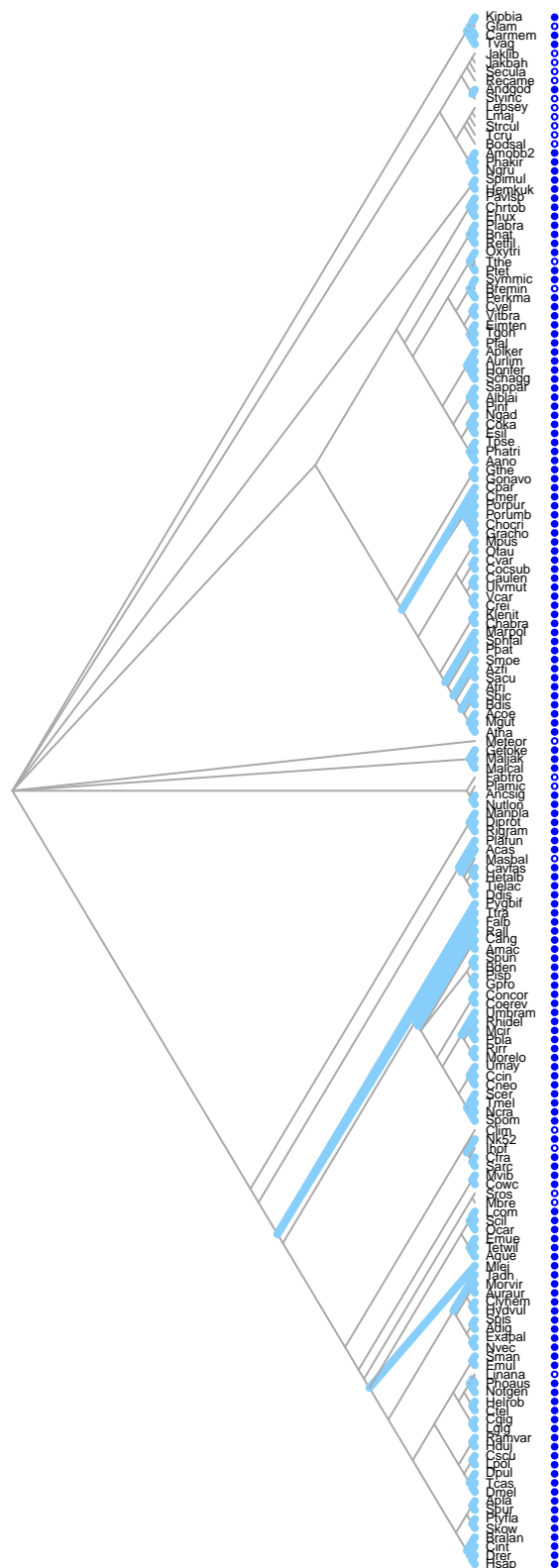
zf−C3HC4_4,zf−TRAF,Histone   zf−C3HC4_4,zf−TRAF,Histone | n=1

XRN_N,XRN_M,Histone   XRN_N,XRN_M,Histone | n=1

UQ_con,Histone   UQ_con,Histone | n=1

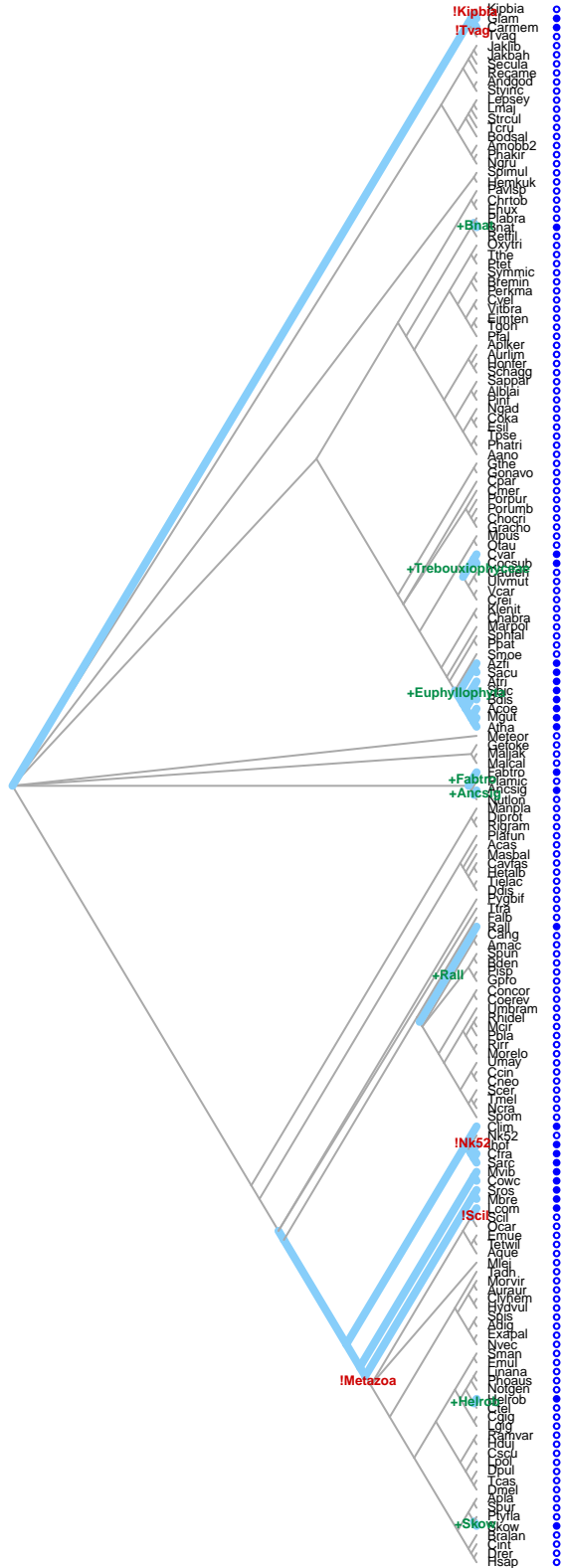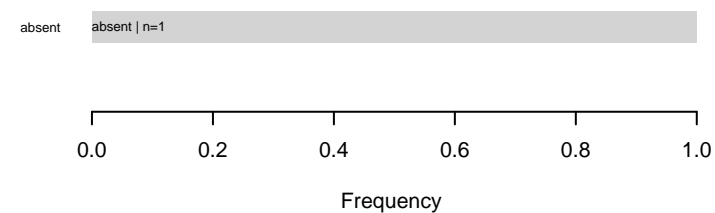SERRATE_Ars2_N,ARS2,Histone   SERRATE_Ars2_N,ARS2,Histone | n=1

Linker_histone,Histone   Linker_histone,Histone | n=1

Kelch_1,Histone   Kelch_1,Histone | n=1

Histone,SH3_2,RhoGEF,PH   Histone,SH3_2,RhoGEF,PH | n=1

Histone,PAXX   Histone,PAXX | n=1

Histone,LRR_8,7tm_1   Histone,LRR_8,7tm_1 | n=1

Histone,FNIP   Histone,FNIP | n=1

Histone,F_actin_cap_B   Histone,F_actin_cap_B | n=1

Histone,CENP−T_C   Histone,CENP−T_C | n=1

Histone,CDC37_N,CDC37_M,CDC37_C   Histone,CDC37_N,CDC37_M,CDC37_C | n=1

Histone,2OG−FeII_Oxy_3   Histone,2OG−FeII_Oxy_3 | n=1

Histone   Histone | n=571

Exo_endo_phos_2,RVT_1,Histone   Exo_endo_phos_2,RVT_1,Histone | n=1

DSL,Histone   DSL,Histone | n=1

CENP−T_C,Histone   CENP−T_C,Histone | n=3

AWS,SET,Histone   AWS,SET,Histone | n=1
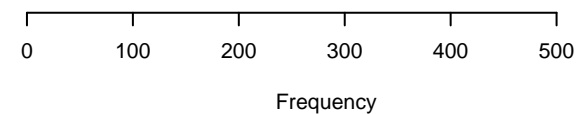
NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

Presence Eukaryota prob = NaN
Present: 150
Losses: NA

Frequency

0   100   200   300   400   500

Histone.HG2.6

H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3C...

Gain: Ccin,Esil,Histionina,NA
Presence Eukaryota prob = 0.00
Present: 6
Losses: NA

Histone.HG2.7
2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3C
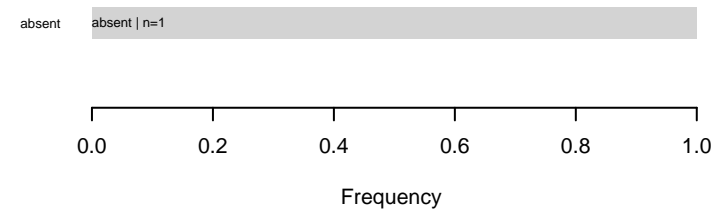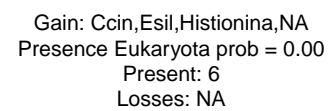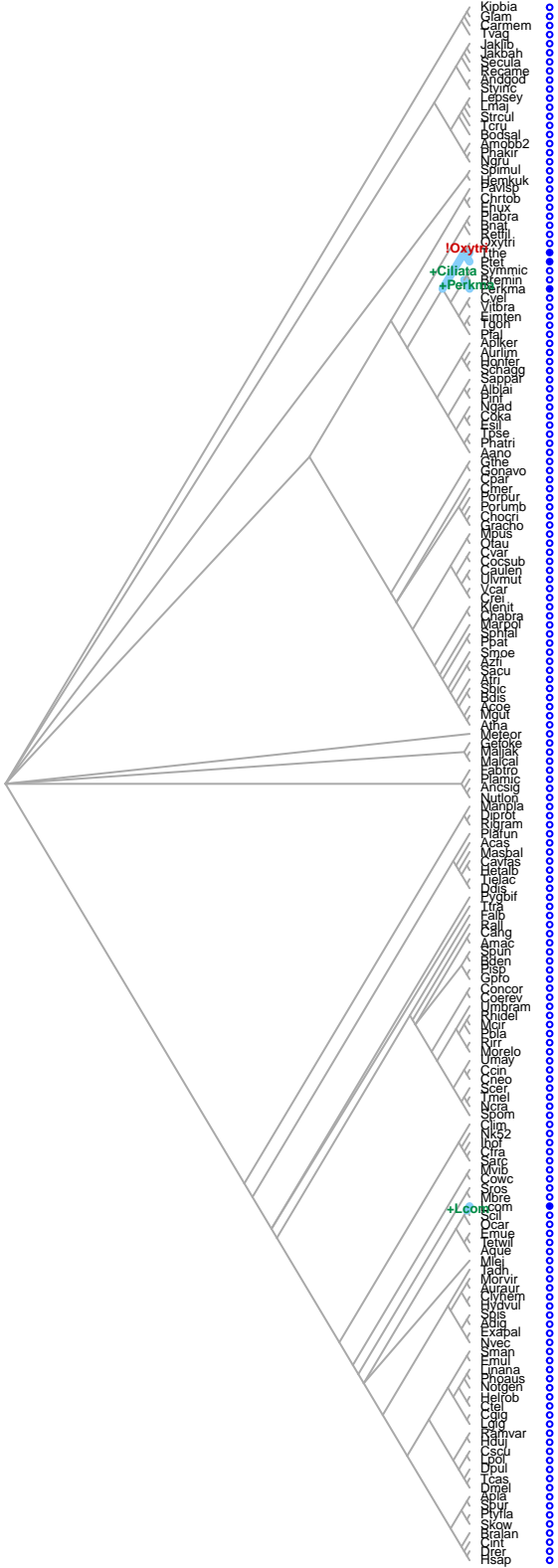
Gain: Lcom,Perkma,Ciliata,NA
Presence Eukaryota prob = 0.00
Present: 4
Losses: NA
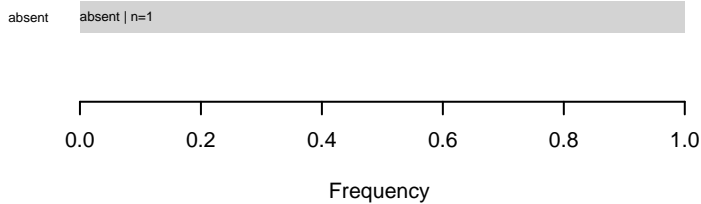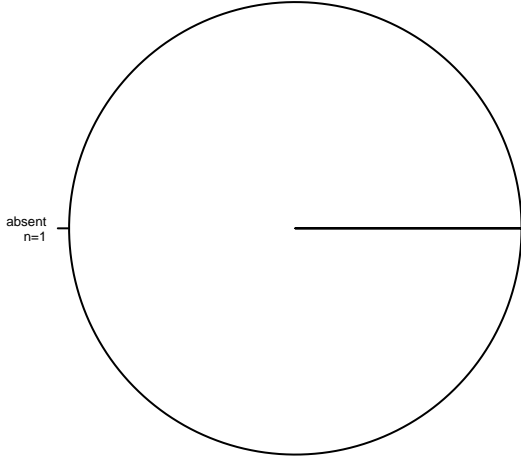
absent
n=1

absent   absent | n=1

Frequency

Histone.HG2.8
2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3

Gain: Ngru,Secula,NA
Presence Eukaryota prob = 0.04
Present: 2
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG2.9
H2/H3−3A/H3−3B/H3−4/H3−5/H3C1/H3C2/H3C3/H3C4/H3C6/H3C7/H3C8/H3C10/H3C11/H3C12/H3C13/H3(
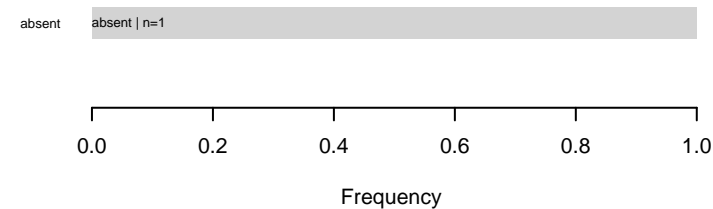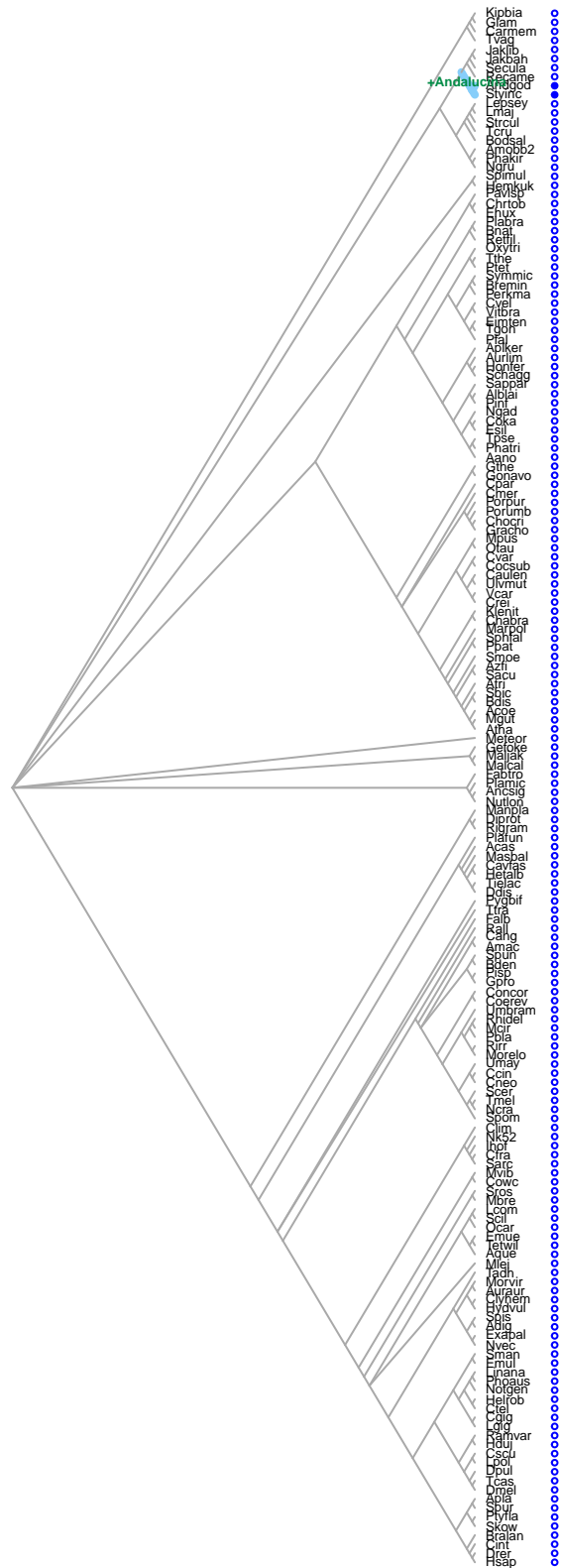
Gain: Andalucina,NA
Presence Eukaryota prob = 0.01
Present: 2
Losses: NA

absent
n=1

absent | n=1

Frequency

Histone.HG3.0
BC5/H2BC6/H2BC7/H2BC8/H2BC9/H2BC10/H2BC11/H2BC12/H2BC13/H2BC14/H2BC15/H2BC17/H2BC
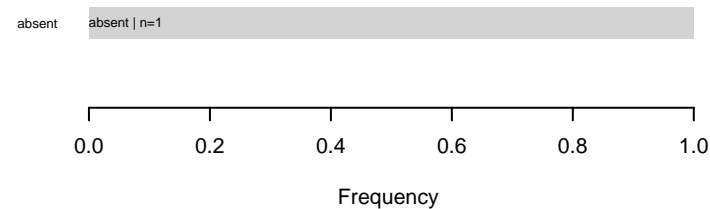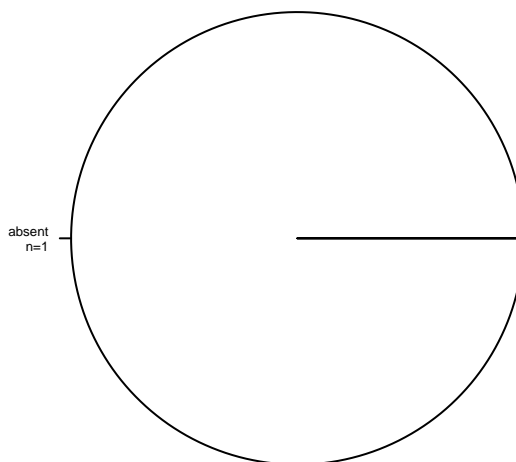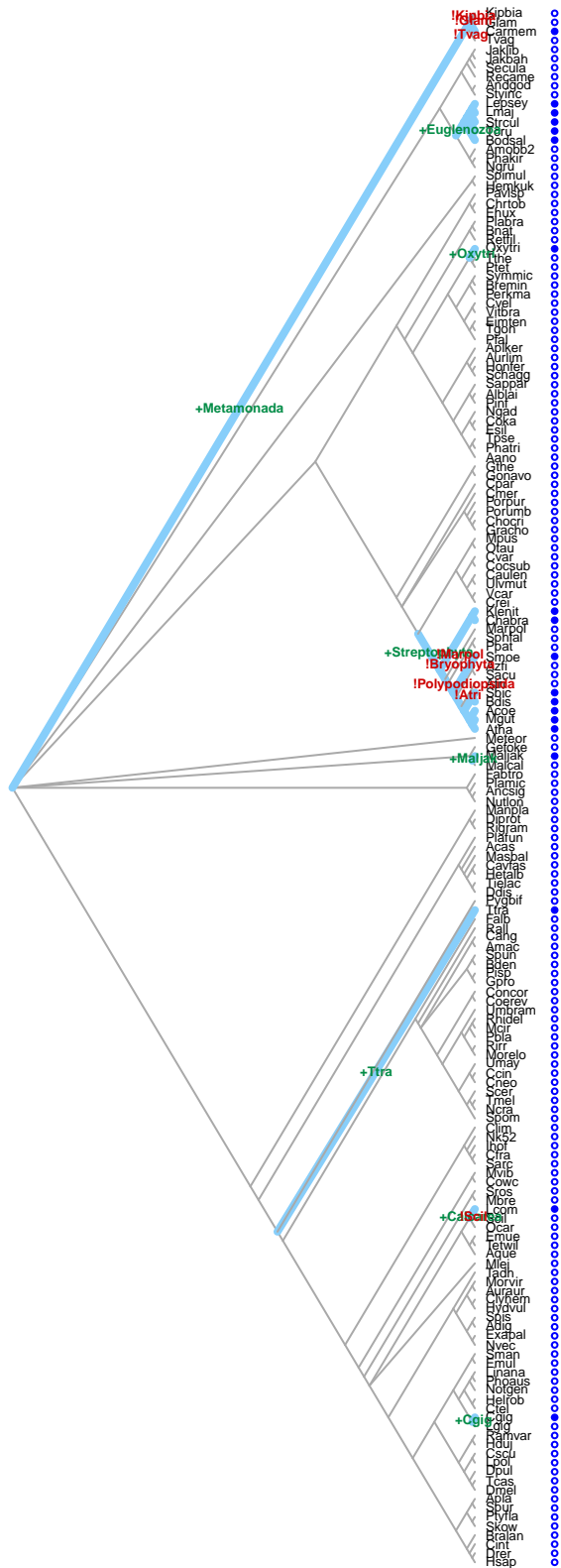
Gain: Cgig,Calcarea,Ttra,Maljak,Streptophyta,Oxytri,Euglenozoa,Metamonada,
Presence Eukaryota prob = 0.09
Present: 19
Losses: NA

Histone.HG3.1
BC5/H2BC6/H2BC7/H2BC8/H2BC9/H2BC10/H2BC11/H2BC12/H2BC13/H2BC14/H2BC15/H2BC17/H2BC
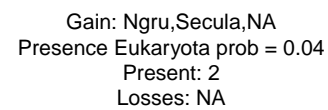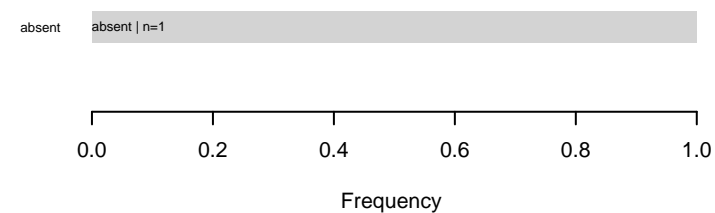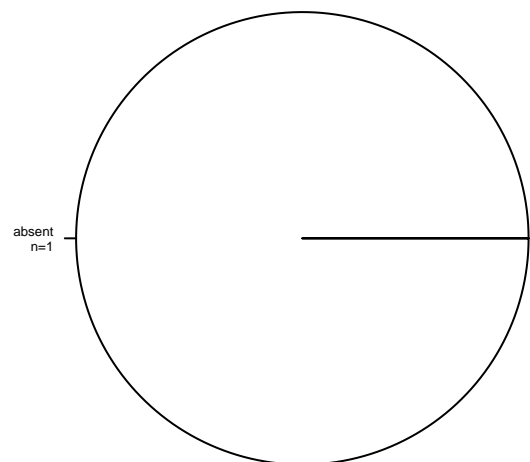
Gain: Retfil,Bnat,NA
Presence Eukaryota prob = 0.00
Present: 3
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG3.3
BC5/H2BC6/H2BC7/H2BC8/H2BC9/H2BC10/H2BC11/H2BC12/H2BC13/H2BC14/H2BC15/H2BC17/H2BC

+Hydrozoa

absent
n=1

absent | absent | n=1

Gain: Hydrozoa,NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

Presence Eukaryota prob = NaN

Present: 141

Losses: NA

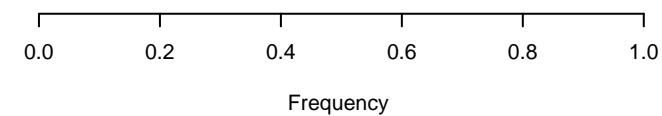|		
zf−RING_9,Histone	zf−RING_9,Histone | n=1	
TAF,Histone	TAF,Histone | n=1	
SNF2_N,Helicase_C,Histone	SNF2_N,Helicase_C,Histone | n=1	
Linker_histone,Histone	Linker_histone,Histone | n=1	
Histone,OPA3	Histone,OPA3 | n=1	
Histone,Histone_H2A_C	Histone,Histone_H2A_C | n=2	
Histone	Histone | n=493	
Exo_endo_phos,RVT_1,Histone	Exo_endo_phos,RVT_1,Histone | n=1	
CENP−T_C,Histone	CENP−T_C,Histone | n=10	

0   100   200   300   400

Frequency

Histone.HG3.6
BC5/H2BC6/H2BC7/H2BC8/H2BC9/H2BC10/H2BC11/H2BC12/H2BC13/H2BC14/H2BC15/H2BC17/H2BC

Gain: HydScyCubozoa,NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG3.7
BC5/H2BC6/H2BC7/H2BC8/H2BC9/H2BC10/H2BC11/H2BC12/H2BC13/H2BC14/H2BC15/H2BC17/H2BC'

absent
n=1

absent   absent | n=1

NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA
Presence Eukaryota prob = NaN
Present: 21
Losses: NA

Frequency

0.0   0.2   0.4   0.6   0.8   1.0

Histone.HG3.8
BC5/H2BC6/H2BC7/H2BC8/H2BC9/H2BC10/H2BC11/H2BC12/H2BC13/H2BC14/H2BC15/H2BC17/H2BC

Gain: Adig,NA
Presence Eukaryota prob = 0.00
Present: 6
Losses: NA

Histone.HG3.9
BC5/H2BC6/H2BC7/H2BC8/H2BC9/H2BC10/H2BC11/H2BC12/H2BC13/H2BC14/H2BC15/H2BC17/H2BC·

Gain: Cgig,Annelida,Icthyophonida,NA
Presence Eukaryota prob = 0.00
Present: 5
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

Histone.HG4.0
NFYC

Gain: Pfal,NA
Presence Eukaryota prob = 1.00
Present: 138
Losses: NA

CBFD_NFYB_HMF
n=191

n=4

Histone
n=48

CRAL_TRIO,CBFD_NFYB_HMF
n=1

CBFD_NFYB_HMF,Ank_2
n=1

Histone	Histone | n=48	
CRAL_TRIO,CBFD_NFYB_HMF	CRAL_TRIO,CBFD_NFYB_HMF | n=1	
CBFD_NFYB_HMF,Ank_2	CBFD_NFYB_HMF,Ank_2 | n=1	
CBFD_NFYB_HMF	CBFD_NFYB_HMF | n=191	
	| n=4	

Frequency

Histone.HG4.1
like:CHRAC1/POLE4

+Chrtob

+Mbre

absent
n=1

absent   absent | n=1
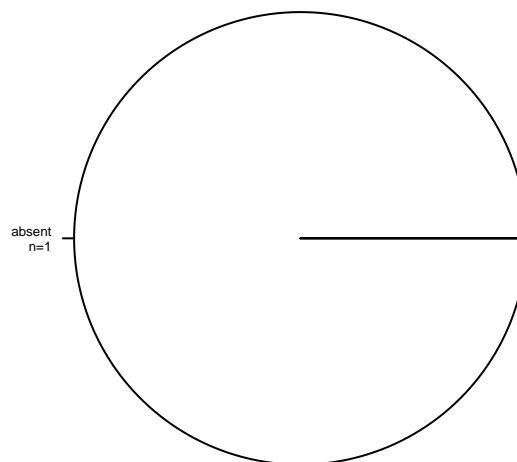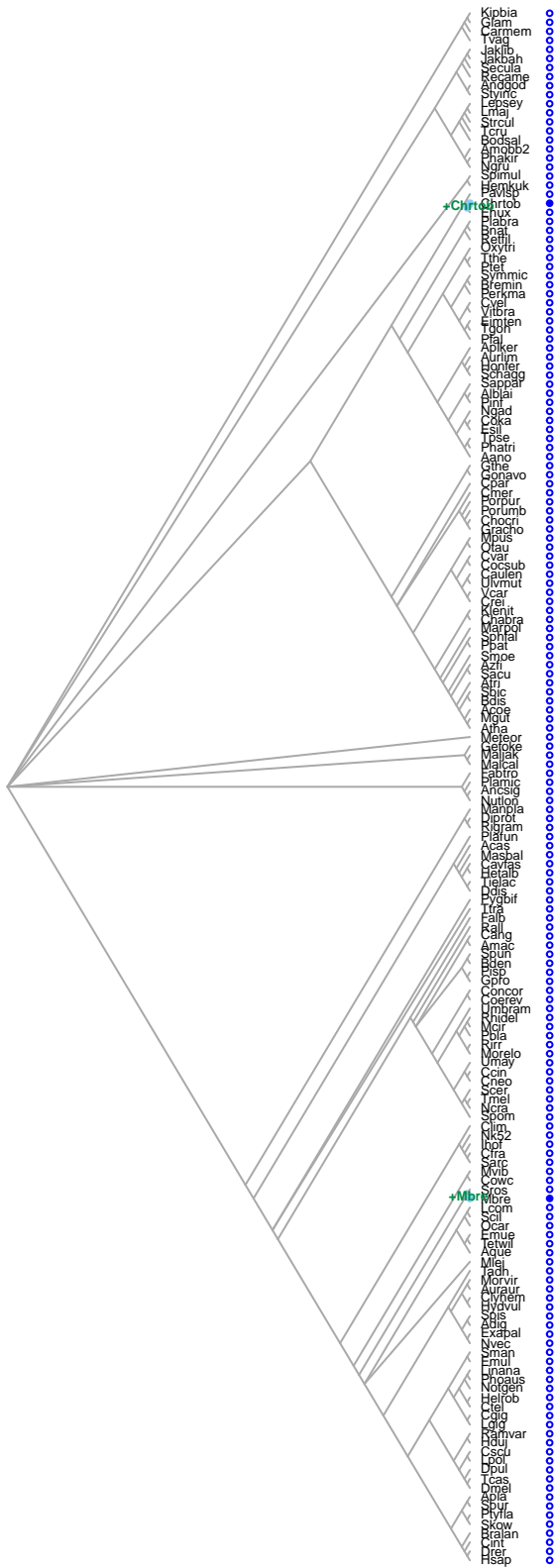
Gain: Mbre,Chrtob,NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

0.0   0.2   0.4   0.6   0.8   1.0

Frequency
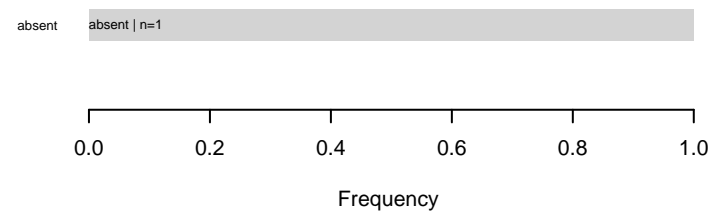
Histone.HG4.2
CHRAC1
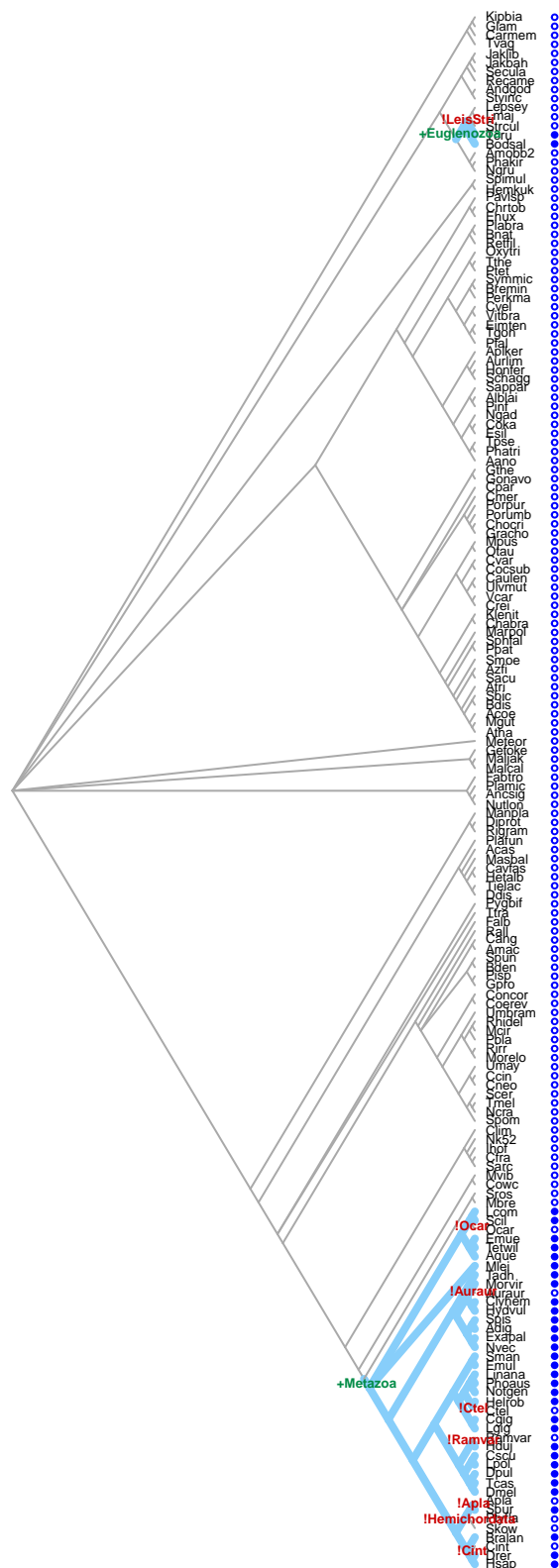
Gain: Metazoa,Euglenozoa,NA
Presence Eukaryota prob = 0.01
Present: 34
Losses: NA
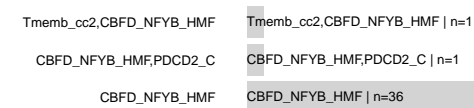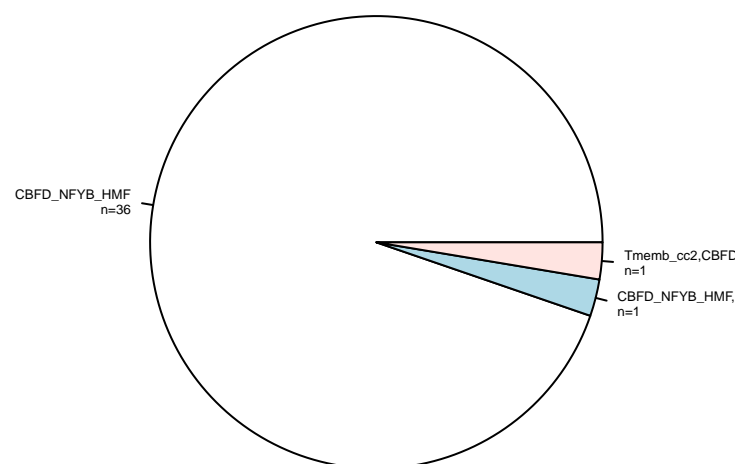
Histone.HG4.3
POLE4

Gain: Holozoa,Falb,Oxytri,NA
Presence Eukaryota prob = 0.00
Present: 38
Losses: NA

CBFD_NFYB_HMF
n=39

n=1

CBFD_NFYB_HMF   CBFD_NFYB_HMF | n=39

| n=1

0   10   20   30
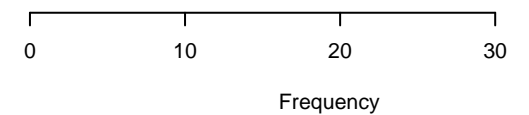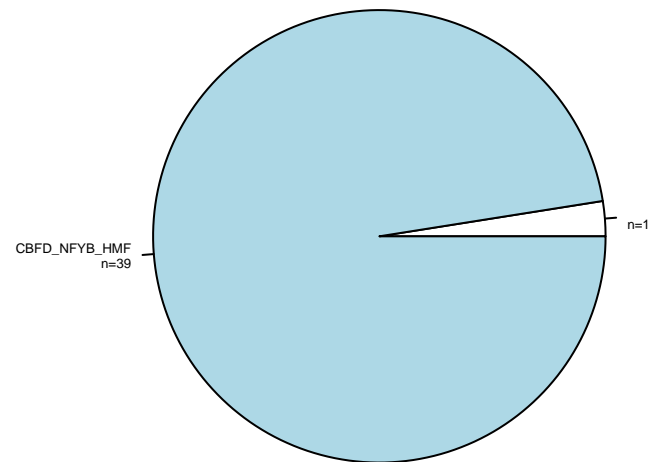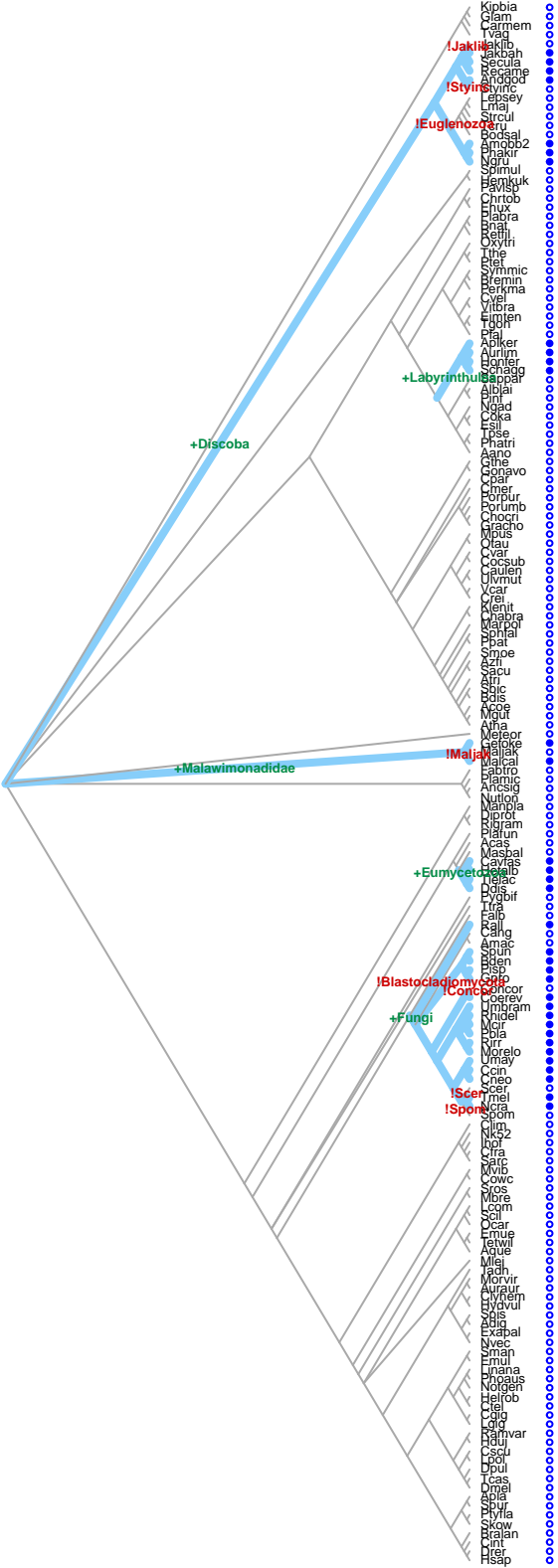
Frequency

Histone.HG4.4
like:CHRAC1/POLE4
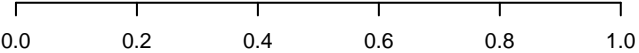
Gain: Fungi,Eumycetozoa,Malawimonadidae,Labyrinthulea,Discoba,NA
Presence Eukaryota prob = 0.17
Present: 34
Losses: NA

Histone.HG4.5
like:CHRAC1/POLE4
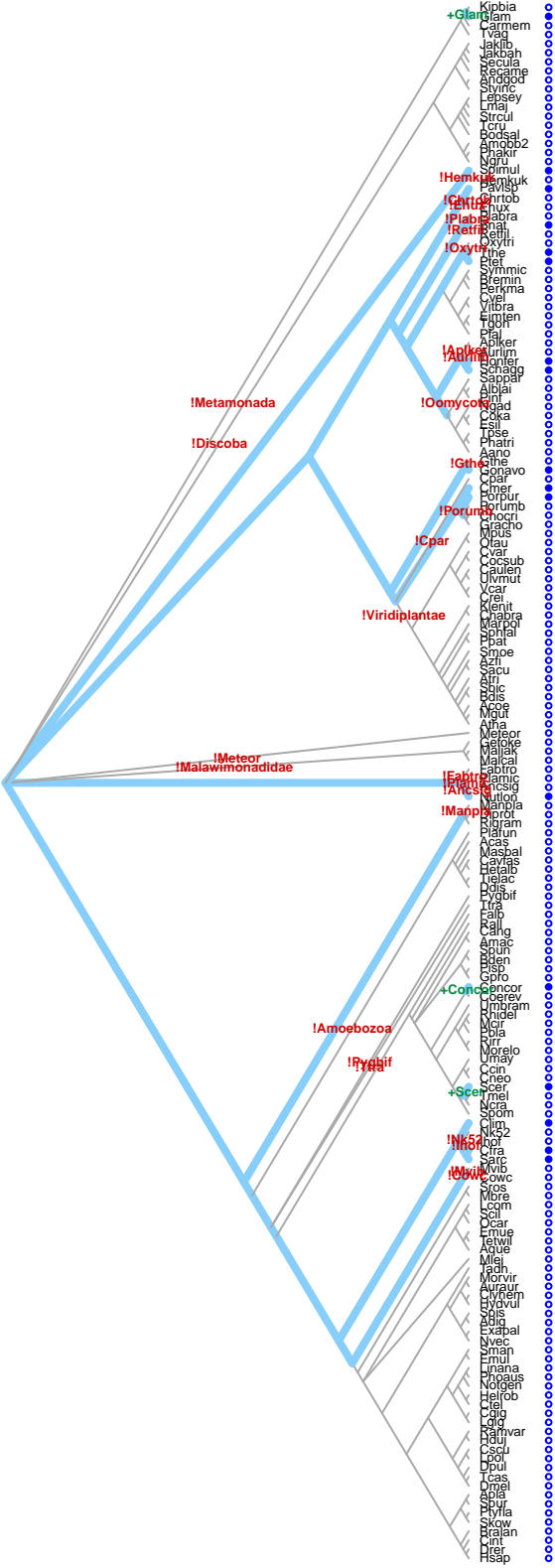
Gain: Scer,Concor,Glam,NA
Presence Eukaryota prob = 0.97
Present: 17
Losses: NA

absent
n=1

absent | n=1

Frequency

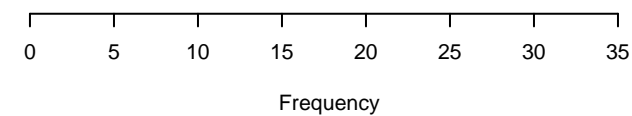**Histone.HG4.6**
like:CHRAC1/POLE4

Gain: Meteor,Spermatophyta,Styinc,NA
Presence Eukaryota prob = 0.04
Present: 7
Losses: NA
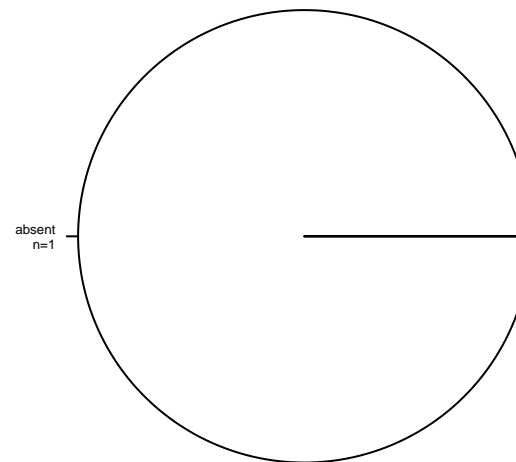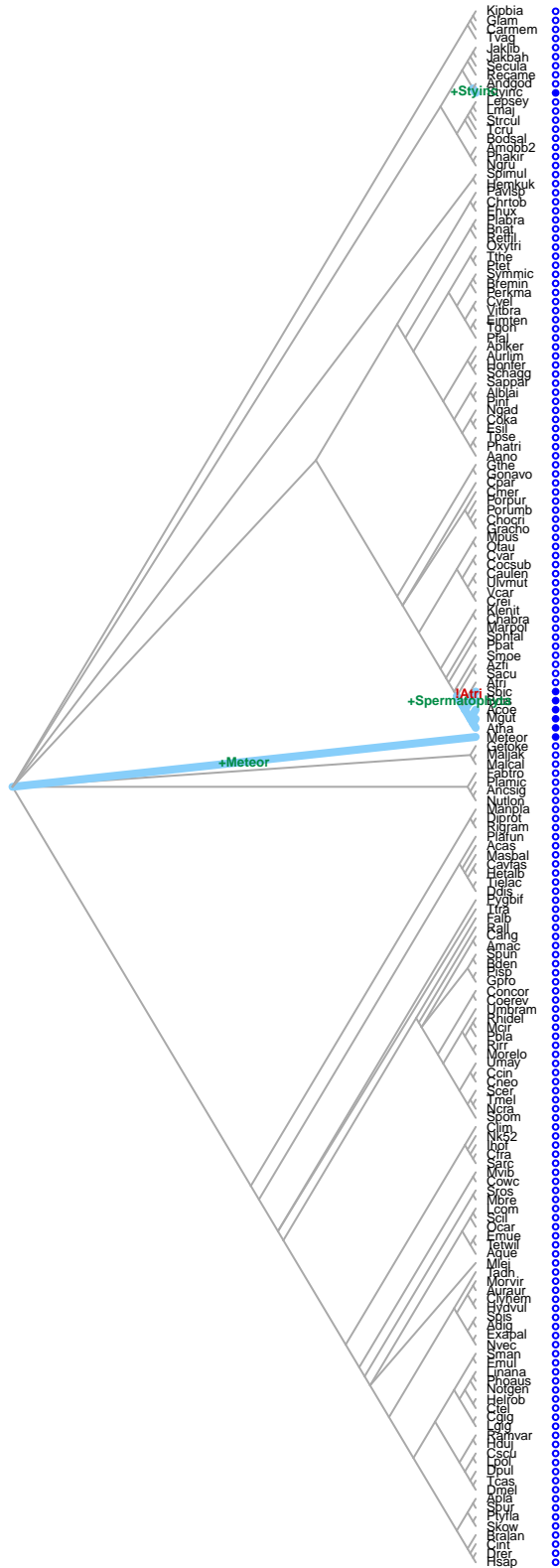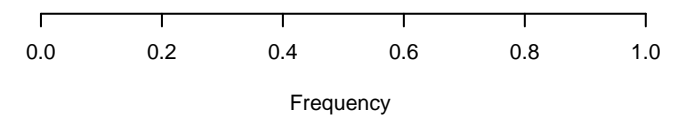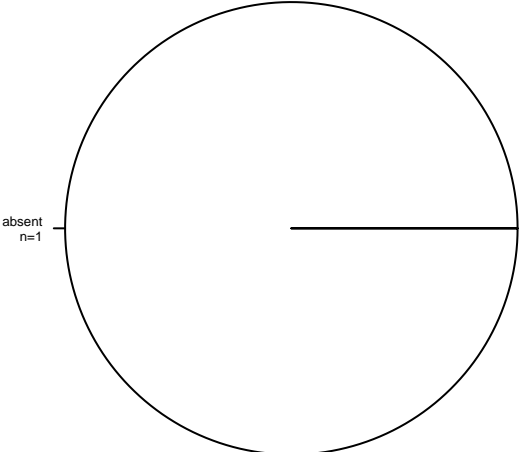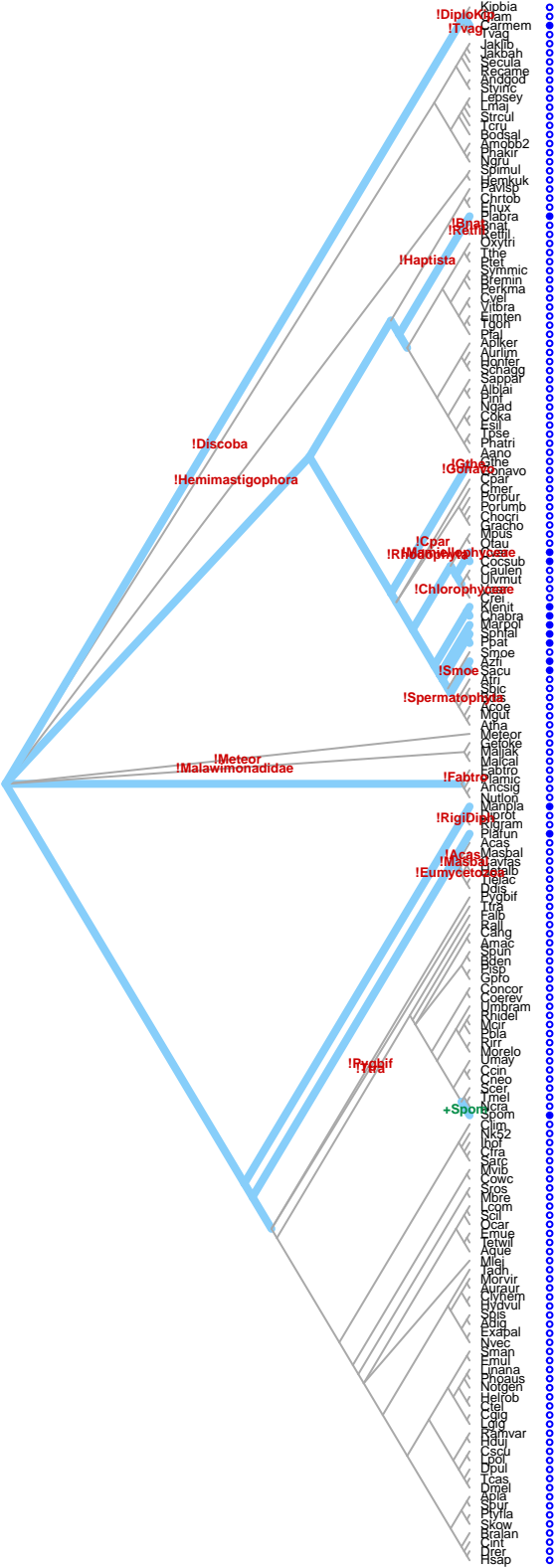
Histone.HG4.7
like:CHRAC1/POLE4
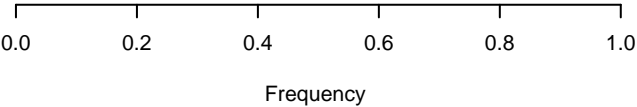
Gain: Spom,NA
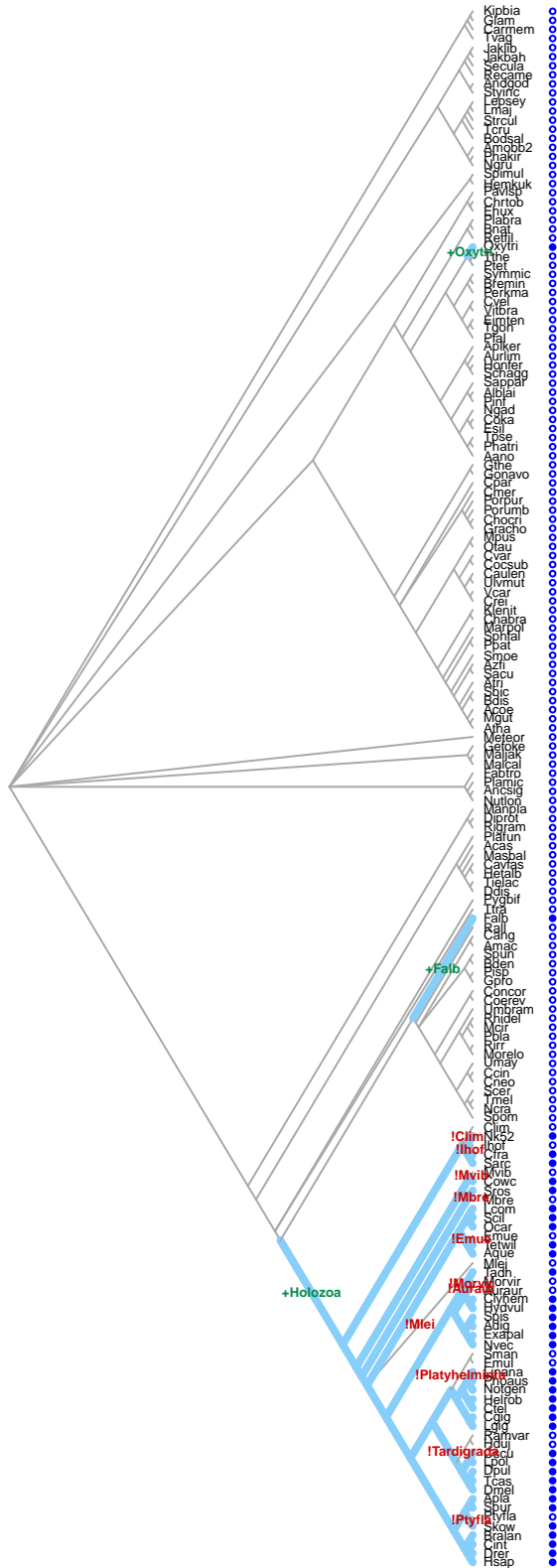Presence Eukaryota prob = 0.90
Present: 14
Losses: NA

absent | n=1

Frequency

Histone.HG4.8
like:CHRAC1/POLE4
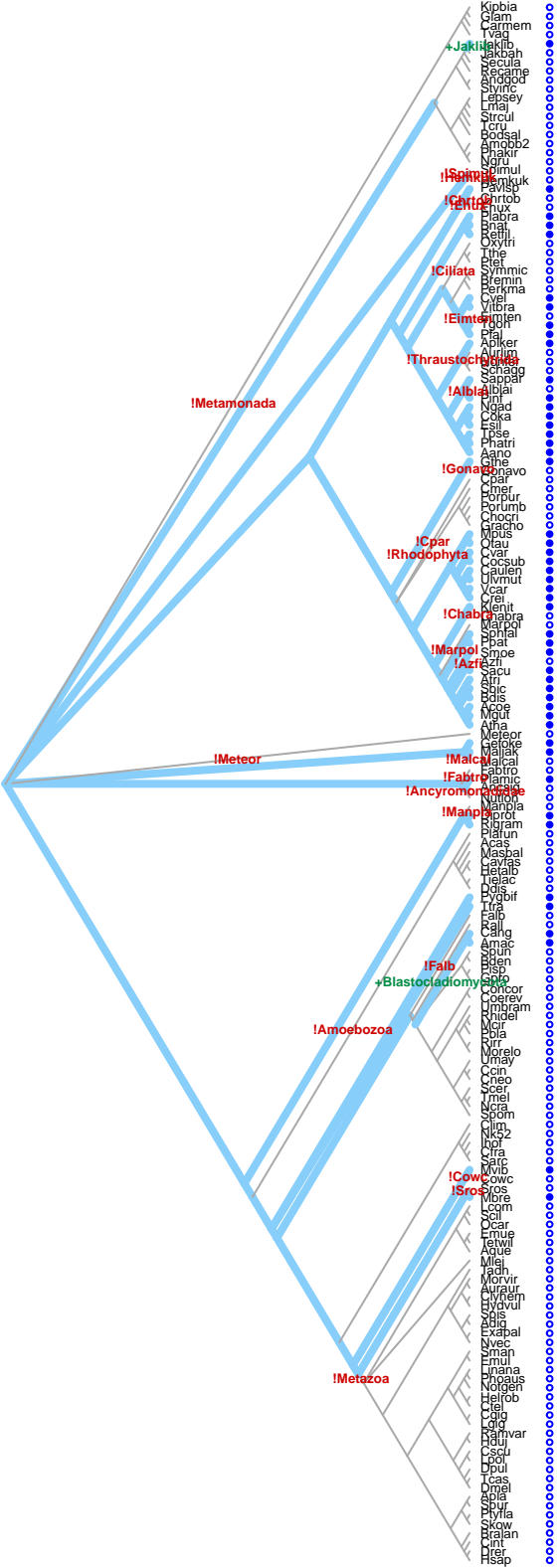
Gain: Blastocladiomycota,Jaklib,NA
Presence Eukaryota prob = 1.00
Present: 49
Losses: NA

absent
n=1

absent | n=1

Frequency

Histone.HG5.0
POLE3
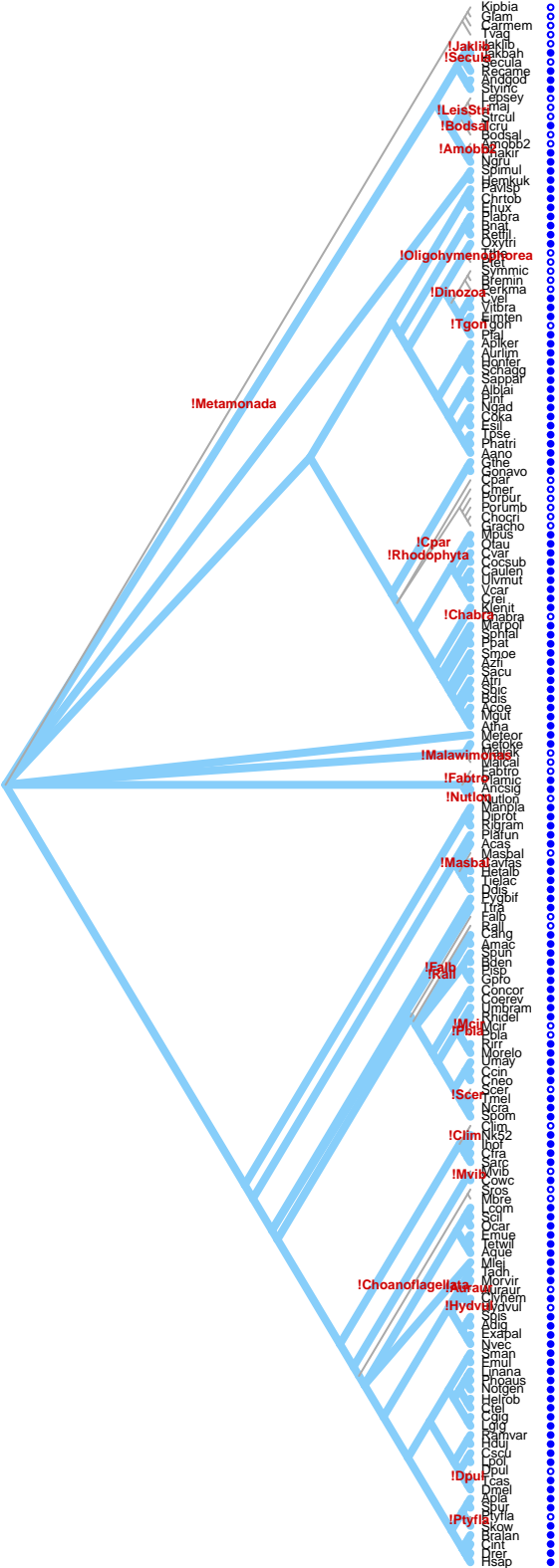
Gain: NA
Presence Eukaryota prob = 1.00
Present: 130
Losses: NA

CBFD_NFYB_HMF
n=143
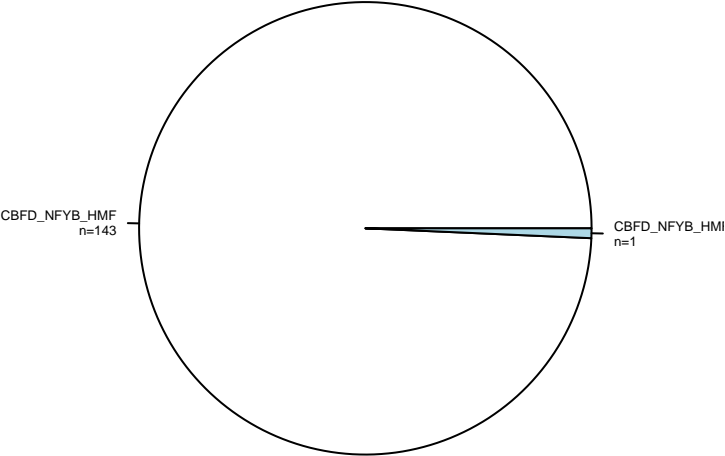
CBFD_NFYB_HMI
n=1

CBFD_NFYB_HMF,Iso_dh | CBFD_NFYB_HMF,Iso_dh | n=1
CBFD_NFYB_HMF | CBFD_NFYB_HMF | n=143

Frequency

Histone.HG5.1
NFYB

CBFD_NFYB_HMF
n=277

UCH,CBFD_NFYB_HMF
SRF-TF,CBFD_NFYB
Pkinase,CBFD_NFY
Pkinase_Tyr,CBFD
MULE,CBFD_NFYB
CBFD_NFYB_HMF,
CBFD_NFYB_HMF,
CBFD_NFYB_HMF,
CBFD_NFYB_HMF,

NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA

Presence Eukaryota prob = NaN
Present: 140
Losses: NA
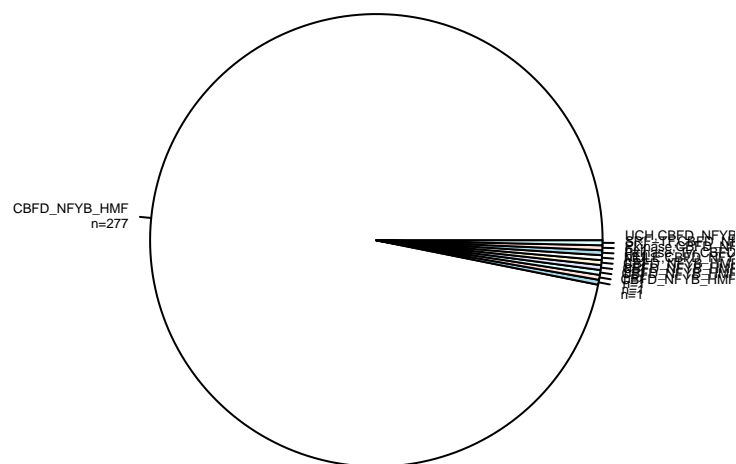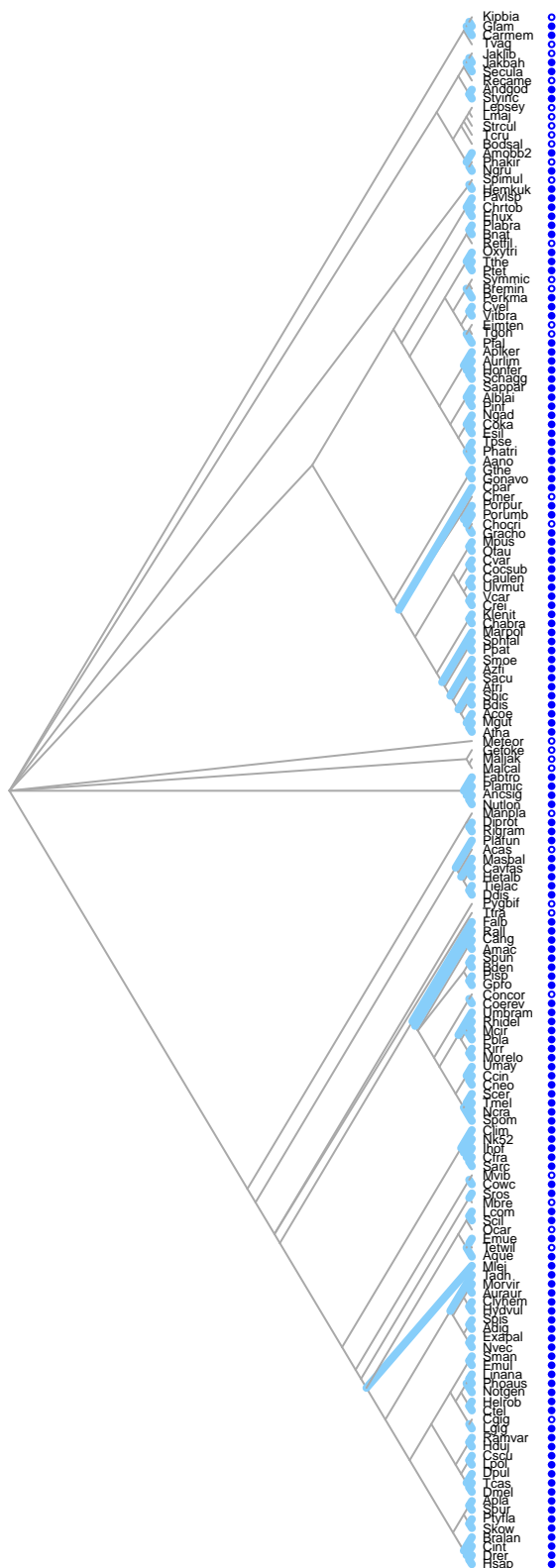
	Frequency
UCH,CBFD_NFYB_HMF	UCH,CBFD_NFYB_HMF | n=1
SRF-TF,CBFD_NFYB_HMF	SRF-TF,CBFD_NFYB_HMF | n=1
Pkinase,CBFD_NFYB_HMF	Pkinase,CBFD_NFYB_HMF | n=1
Pkinase_Tyr,CBFD_NFYB_HMF	Pkinase_Tyr,CBFD_NFYB_HMF | n=1
MULE,CBFD_NFYB_HMF	MULE,CBFD_NFYB_HMF | n=1
CBFD_NFYB_HMF,zf-CXXC	CBFD_NFYB_HMF,zf-CXXC | n=1
CBFD_NFYB_HMF,Sulfate_transp,cNMP_binding	CBFD_NFYB_HMF,Sulfate_transp,cNMP_binding | n=1
CBFD_NFYB_HMF,MRP-S33	CBFD_NFYB_HMF,MRP-S33 | n=1
CBFD_NFYB_HMF,F-box-like	CBFD_NFYB_HMF,F-box-like | n=1
CBFD_NFYB_HMF	CBFD_NFYB_HMF | n=277

0   50   100   150   200   250

Frequency

Histone.HG6.0
like:H4−16/H4C1/H4C2/H4C3/H4C4/H4C5/H4C6/H4C8/H4C9/H4C11/H4C12/H4C13/H4C14/H4C15

Gain: Calcarea,Spun,NA
Presence Eukaryota prob = 1.00
Present: 47
Losses: NA

absent
n=1

	absent	n=1
absent	absent	n=1

Frequency

Histone.HG6.1
like:H4−16/H4C1/H4C2/H4C3/H4C4/H4C5/H4C6/H4C8/H4C9/H4C11/H4C12/H4C13/H4C14/H4C15
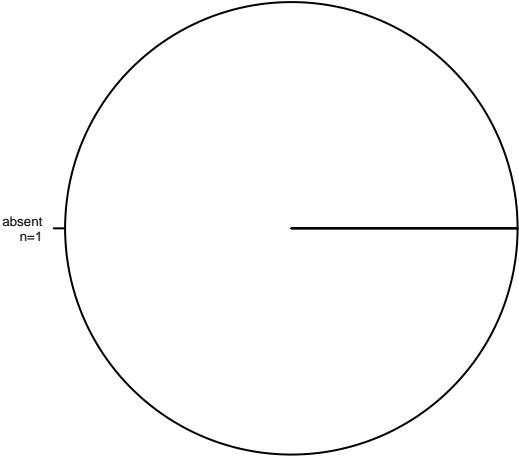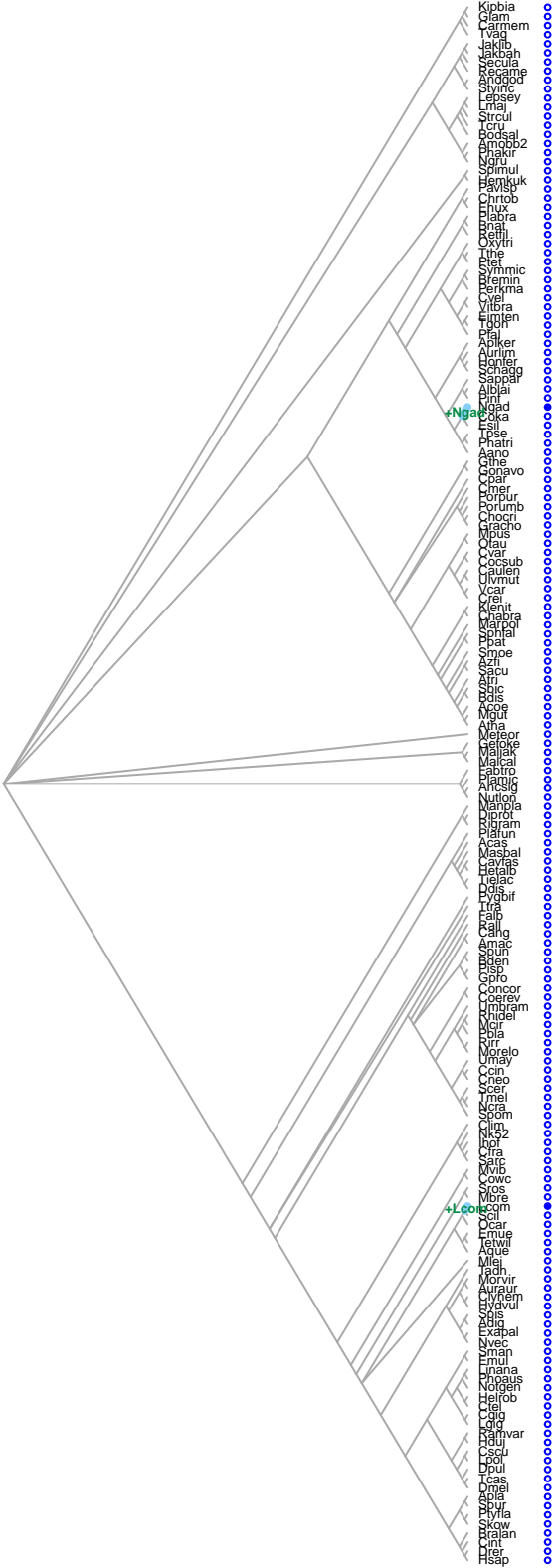
Gain: Lcom,Ngad,NA
Presence Eukaryota prob = 0.00
Present: 2
Losses: NA

absent
n=1

absent | absent | n=1

Frequency

CENP−T_C
n=288

Histone,Histone_H
Histone,CENP−T_C
Histone
CENP−T_C,LSM
CENP−T_C,Histone
CENP−T_C,DSPc
n=1
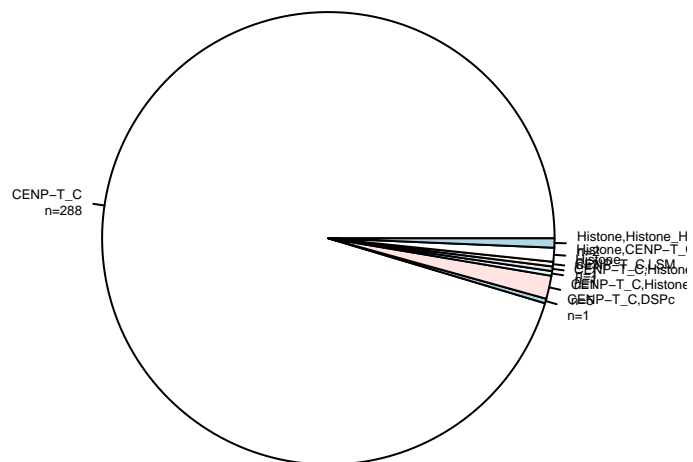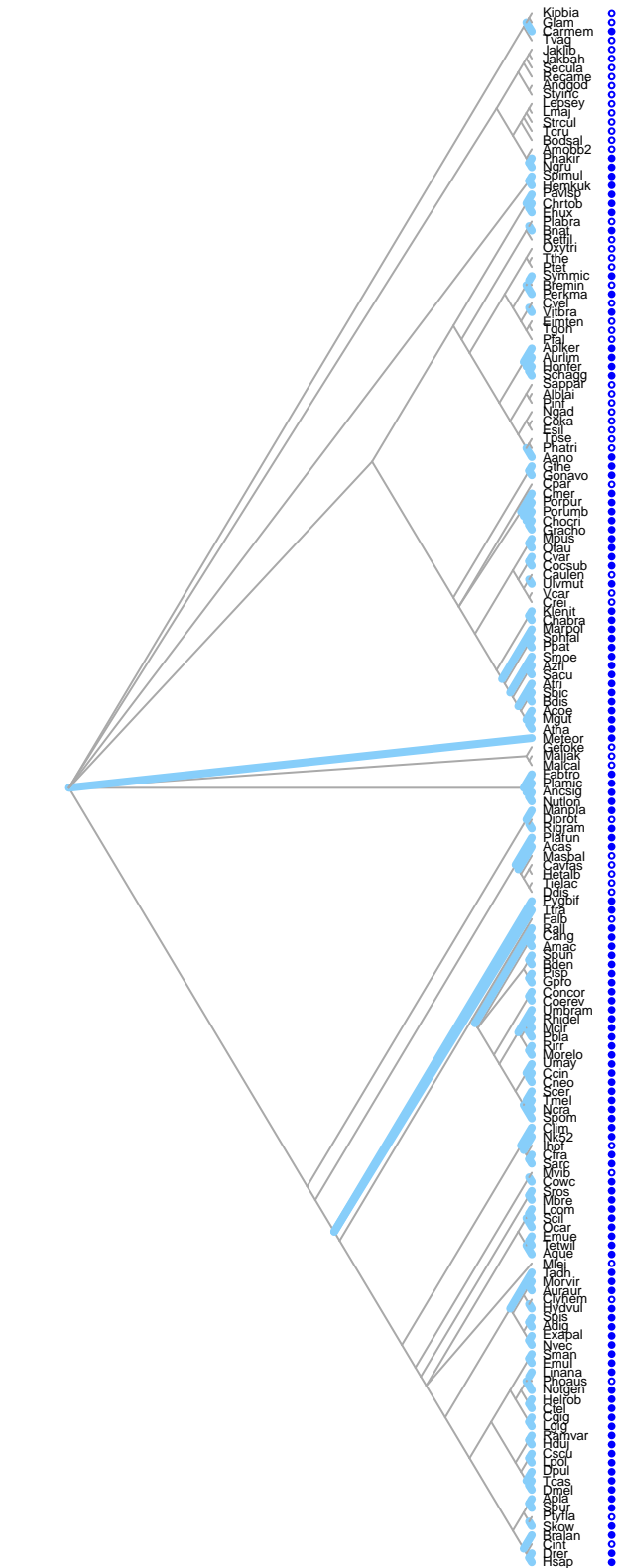
Histone,Histone_H2A_C,CENP−T_C	Histone,Histone_H2A_C,CENP−T_C	n=2
Histone,CENP−T_C	Histone,CENP−T_C	n=3
Histone	Histone	n=1
CENP−T_C,LSM	CENP−T_C,LSM	n=1
CENP−T_C,Histone,Histone_H2A_C	CENP−T_C,Histone,Histone_H2A_C	n=1
CENP−T_C,Histone	CENP−T_C,Histone	n=5
CENP−T_C,DSPc	CENP−T_C,DSPc	n=1
CENP−T_C	CENP−T_C	n=288

Frequency

NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA,NA
Presence Eukaryota prob = NaN
Present: 118
Losses: NA

Histone.HG7.0
DRAP1

CBFD_NFYB_HMF
n=148

Gain: NA
Presence Eukaryota prob = 1.00
Present: 123
Losses: NA
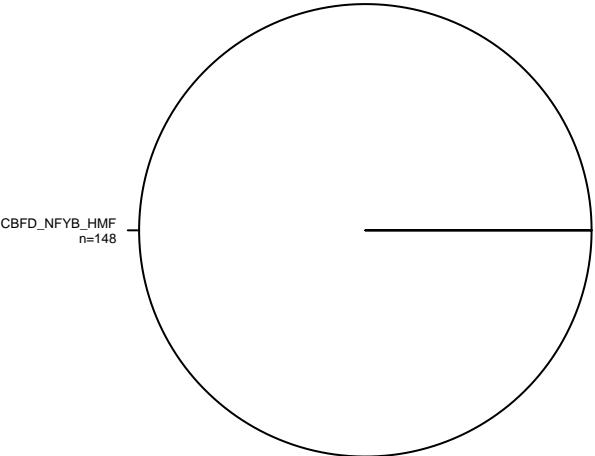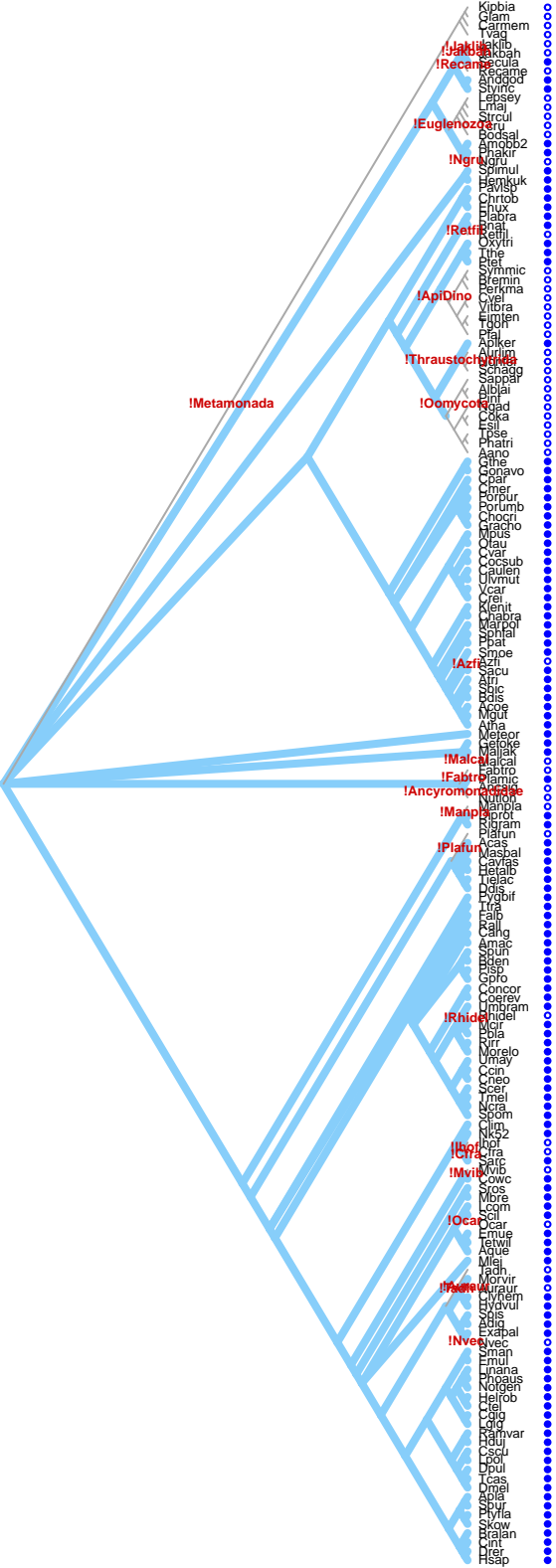
CBFD_NFYB_HMF   CBFD_NFYB_HMF | n=148

0   20   40   60   80   100   120   140

Frequency

Histone.HG8.0
DR1

Gain: NA
Presence Eukaryota prob = 1.00
Present: 127
Losses: NA

CBFD_NFYB_HMF
n=142

CBFD_NFYB_HMI
n=1

CBFD_NFYB_HMF,RIBIOP_C   CBFD_NFYB_HMF,RIBIOP_C | n=1

CBFD_NFYB_HMF   CBFD_NFYB_HMF | n=142
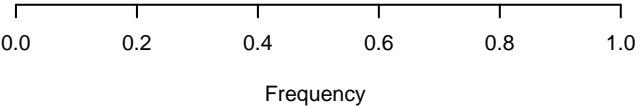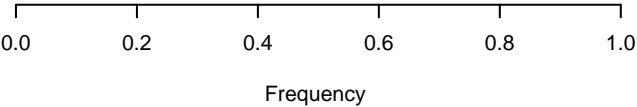
0	20	40	60	80	100	120	140

Frequency

Histone.HG9.0
CENPS/CENPS-CORT/CENPT
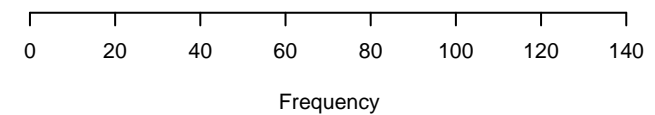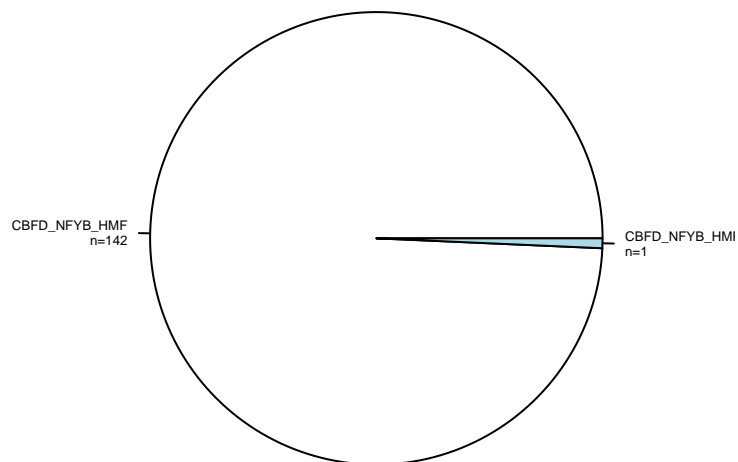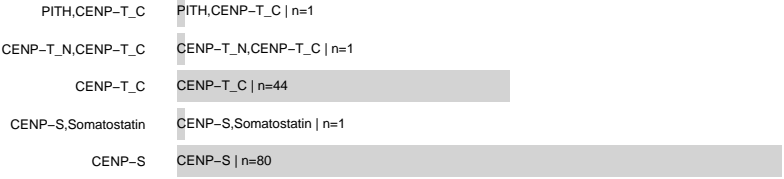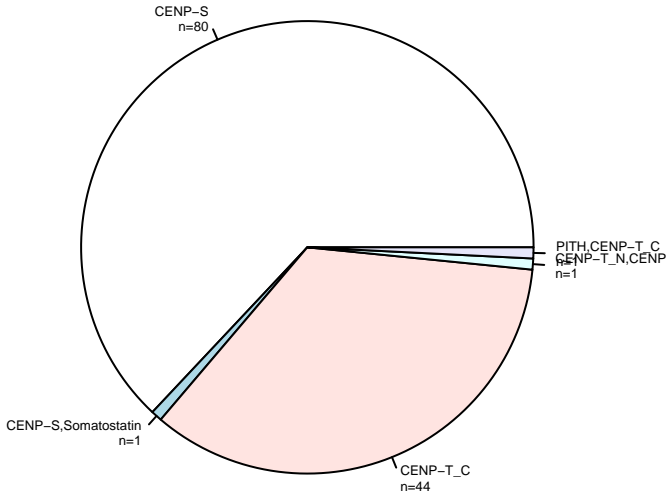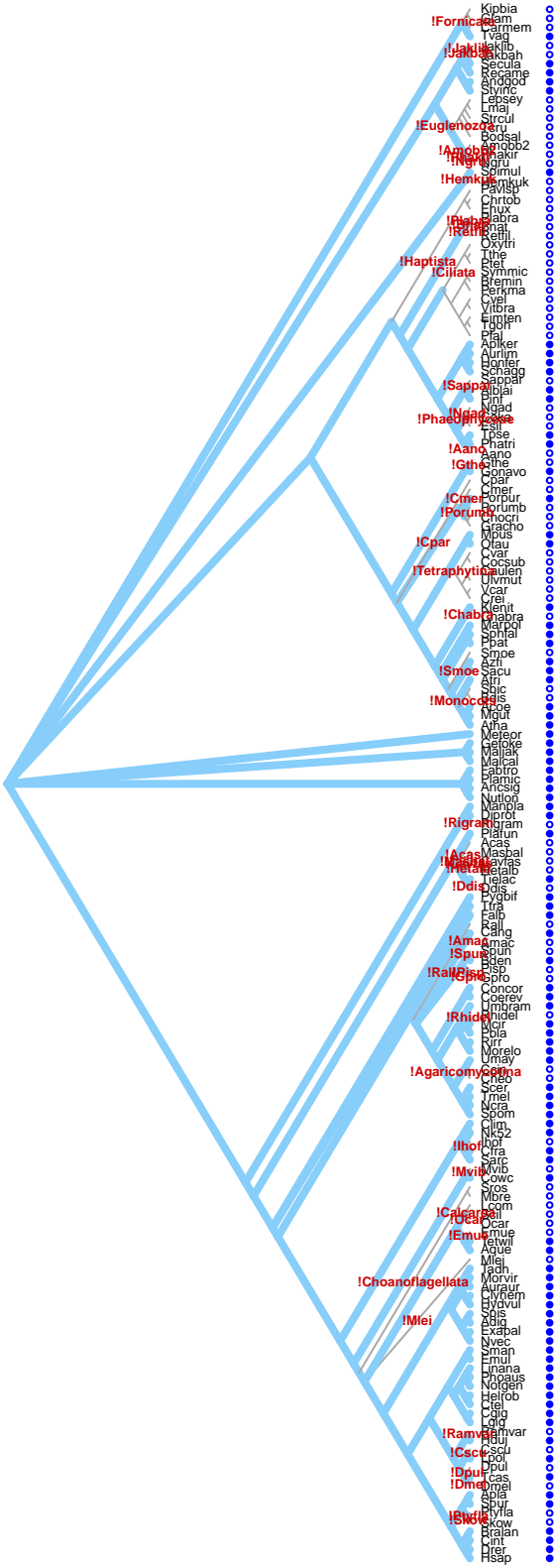
Gain: NA
Presence Eukaryota prob = 1.00
Present: 91
Losses: NA

LinkerHistone.HG1.0
H1−10

Gain: Gpro,NA
Presence Eukaryota prob = 0.99
Present: 21
Losses: NA
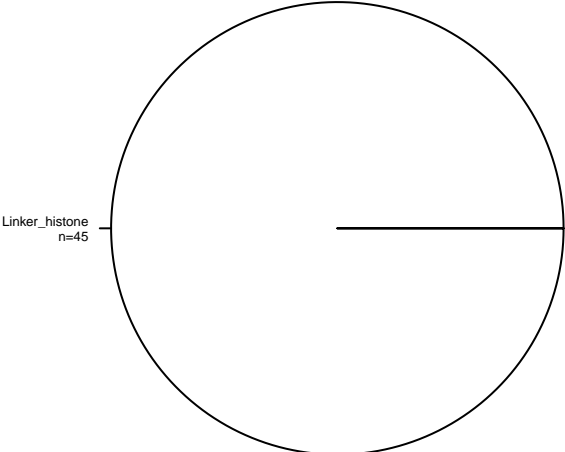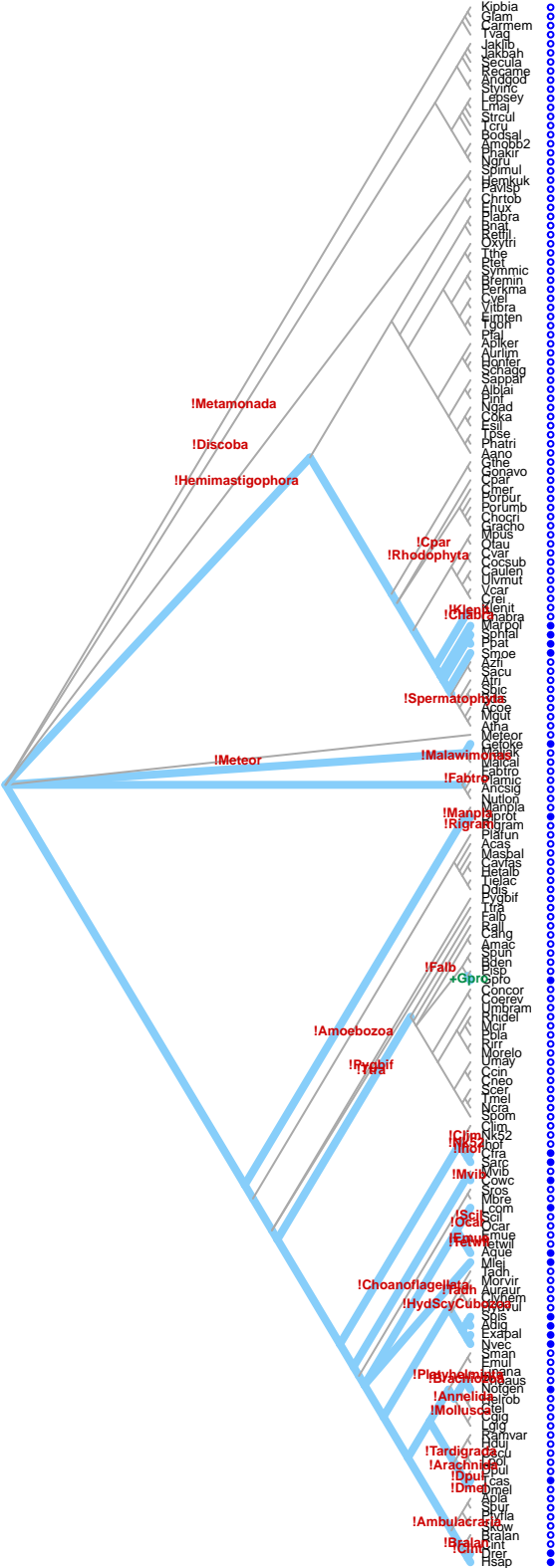
Linker_histone
n=45

Linker_histone   Linker_histone | n=45

Frequency

LinkerHistone.HG1.1
like:H1-0/H1-1/H1-2/H1-3/H1-4/H1-5/H1-6/H1-8/H1-10/HP1BP3/SHPRH
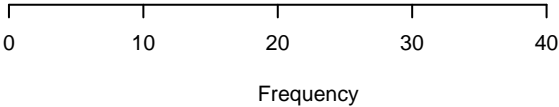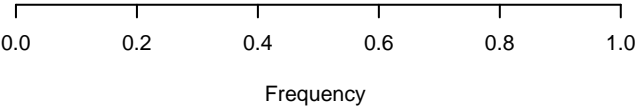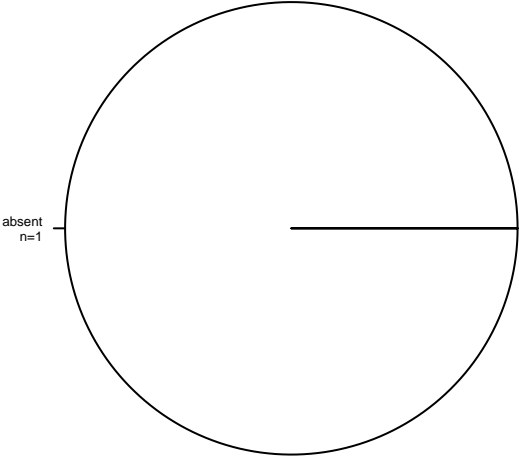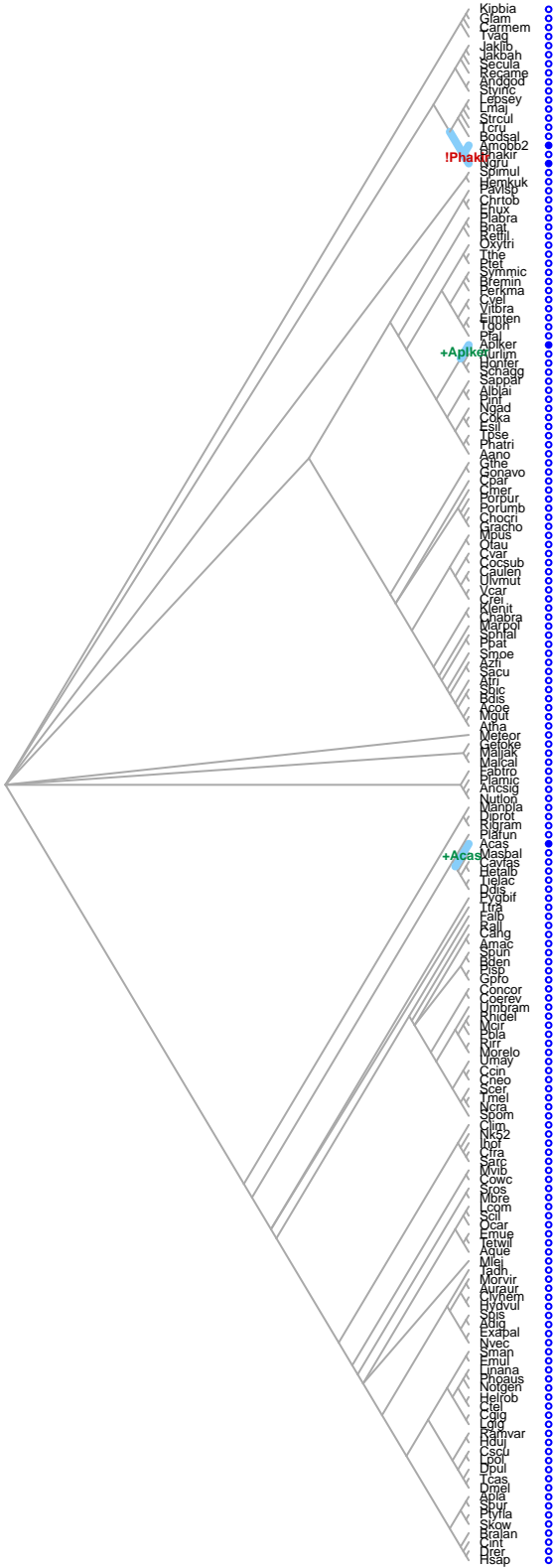
Gain: Acas,Aplker,NA
Presence Eukaryota prob = 0.18
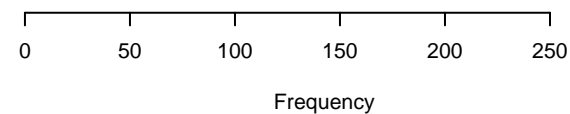Present: 4
Losses: NA

absent
n=1

absent   absent | n=1

Frequency

LinkerHistone.HG1.10
like:H1-0/H1-1/H1-2/H1-3/H1-4/H1-5/H1-6

Gain: Tardigrada,Cowc,NA
Presence Eukaryota prob = 0.00
Present: 3
Losses: NA

absent
n=1

absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

LinkerHistone.HG1.11
like:H1-0/H1-1/H1-2/H1-3/H1-4/H1-5/H1-6

Gain: Metazoa,Dpul,NA
Presence Eukaryota prob = 0.00
Present: 7
Losses: NA

absent
n=1

absent | absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0
Frequency

LinkerHistone.HG1.12
like:H1-0/H1-1/H1-2/H1-3/H1-4/H1-5/H1-6

Gain: Nk52,NA
Presence Eukaryota prob = 0.02
Present: 4
Losses: NA

absent
n=1

absent   absent | n=1

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

LinkerHistone.HG1.13
H1-8
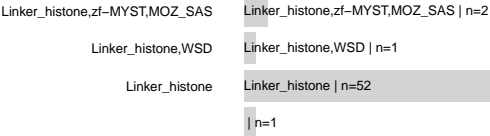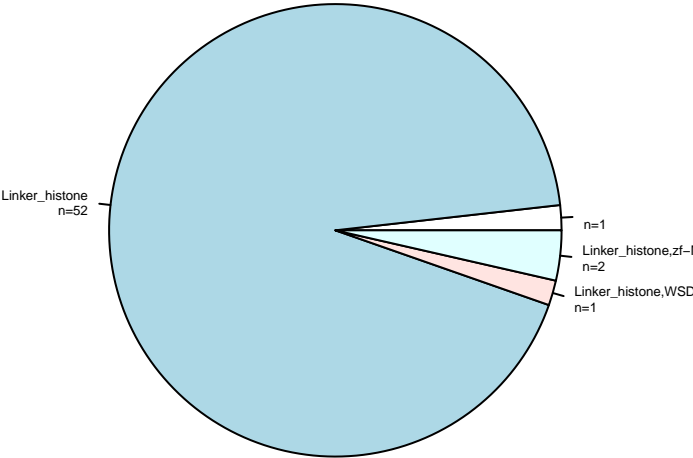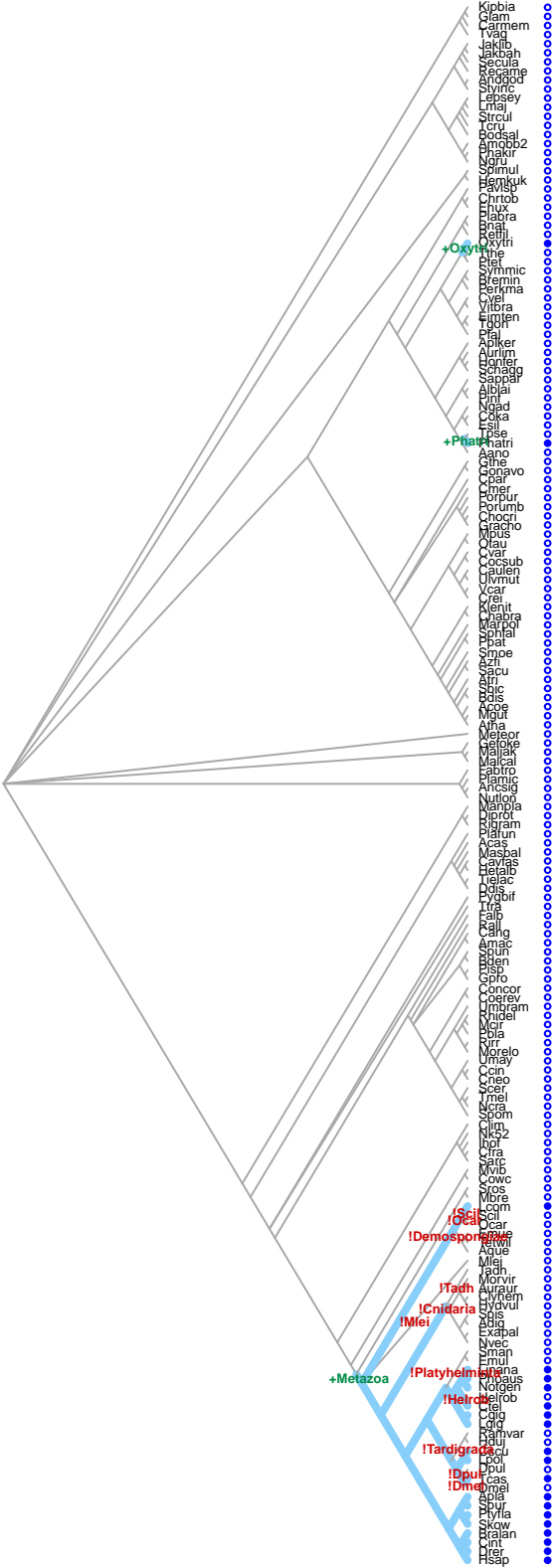
Gain: Metazoa,Phatri,Oxytri,NA
Presence Eukaryota prob = 0.01
Present: 20
Losses: NA

Linker_histone
n=52

n=1

Linker_histone,zf-f
n=2

Linker_histone,WSD
n=1

Linker_histone,zf-MYST,MOZ_SAS   Linker_histone,zf-MYST,MOZ_SAS | n=2

Linker_histone,WSD   Linker_histone,WSD | n=1

Linker_histone   Linker_histone | n=52

| n=1

Frequency

LinkerHistone.HG1.14
like:H1-1/H1-2/H1-3/H1-4/H1-5/H1-6

Gain: Bilateria,Carmem,NA
Presence Eukaryota prob = 0.00
Present: 10
Losses: NA

absent
n=1

absent | absent | n=1

Frequency

LinkerHistone.HG1.15
like:H1−1/H1−2/H1−3/H1−4/H1−5/H1−6

+Platyhelminta

+Apla

absent
n=1

absent   absent | n=1

Gain: Apla,Platyhelminta,NA
Presence Eukaryota prob = 0.00
Present: 3
Losses: NA

0.0   0.2   0.4   0.6   0.8   1.0

Frequency

LinkerHistone.HG1.16
H1−1/H1−2/H1−3/H1−4/H1−5/H1−6

Kipbia
Glam
Carmem
Twad
Jaklib
Jakbah
Secula
Recame
Atvdgod
Styinc
Lepsey
Lmaj
Strcul
Tcru
Bodsal
Amobb2
Amhakir
Ngru
Spimul
Hemkuk
Cavisp
Chrtob
Ehux
Piabra
Bnat
Retil
Oxytri
Thie
Piet
Symmic
Bremin
Perkma
Cvel
Vitbra
Eimten
Egori
Pfal
Aplker
Aurlim
Bonfer
Schagg
Sappar
Albjai
Ninf
Ngad
Cska
Esil
Tpse
Phatri
Aano
Githe
Gonavo
Cpar
Cmer
Porpur
Porumb
Chocri
Gracho
Mpus
Qtau
Cvar
Cocsub
Caulen
Ulvmut
Vcar
Crein
Klenit
Chabra
Marpol
Pphal
Pbat
Smoe
Azfi
Sacu
Atri
Sblc
Pdis
Acoe
Mgut
Atha
Meteor
Geroke
Maliak
Malcal
Eabtro
Plamic
Ancsig
Nutlod
Manbla
Diprot
Bigram
Biafun
Acas
Maspal
Cavfas
Hetalb
Tuelac
Bvis
Pygbif
Ttra
Falb
Rall
Cang
Amac
Spun
Bden
Bisp
Gpfo
Concor
Coerev
Umbram
Rhidel
Mcir
Pbla
Rirr
Morelo
Urnay
Ccin
Cneo
Scer
Tmel
Ncra
Spom
Clim
Nks2
Ihof
Cfra
Carc
Mvib
Cowc
Sros
Mbre
Scom
Scil
Ocar
Emue
Tetwil
Aque
Mlei
Tadh
Morvir
Auraur
Clyhem
Hydvul
Sols
Adig
Exabal
Nvec
Sman
Fmul
Lnana
Phogus
Notgen
Helrob
Ctel
Cgig
Lgig
Ramvar
Hrau
Cscu
Phot
Dpul
Tcas
Amel
Dpla
Spur
Dyhla
Skow
Braian
Bint
Drer
Hsap

+Deuterostomia

Gain: Deuterostomia,NA
Presence Eukaryota prob = 0.00
Present: 4
Losses: NA

Linker_histone
n=33

Linker_histone   Linker_histone | n=33

0   5   10   15   20   25   30

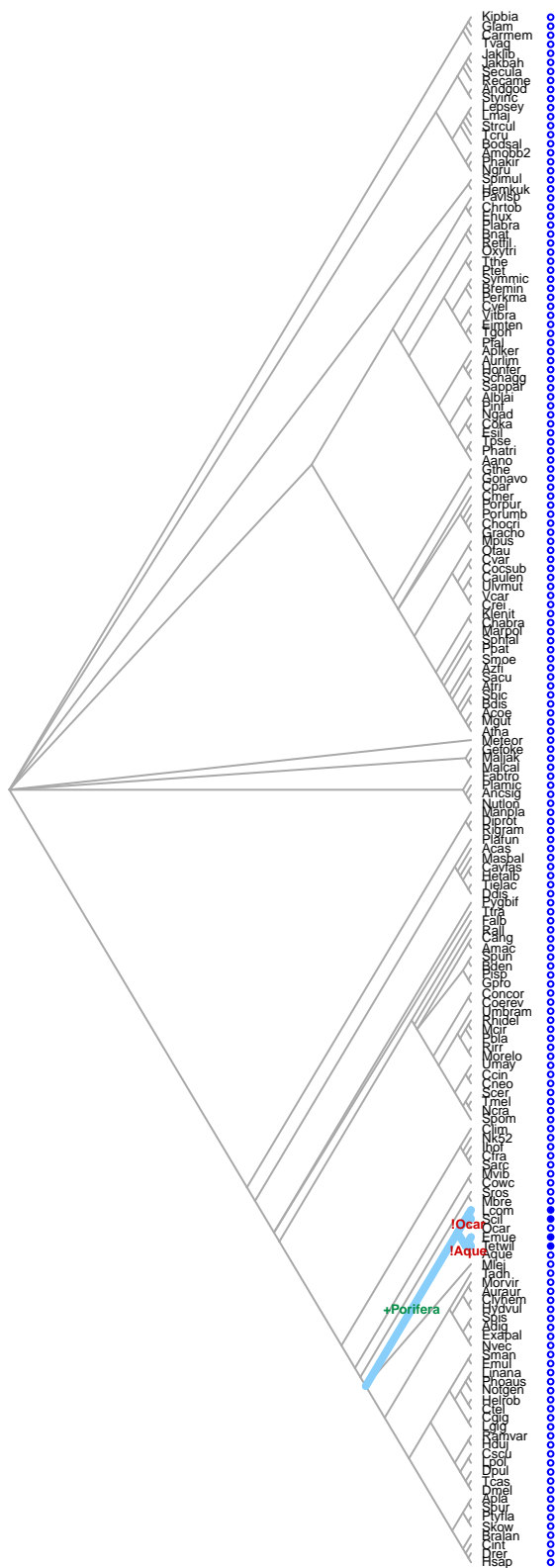**Frequency**

LinkerHistone.HG1.17
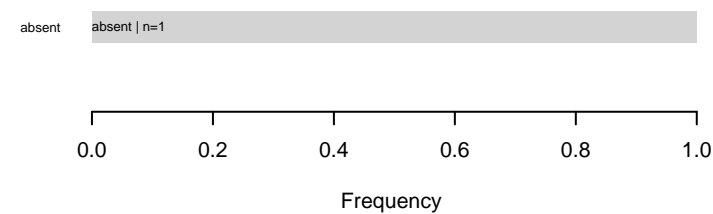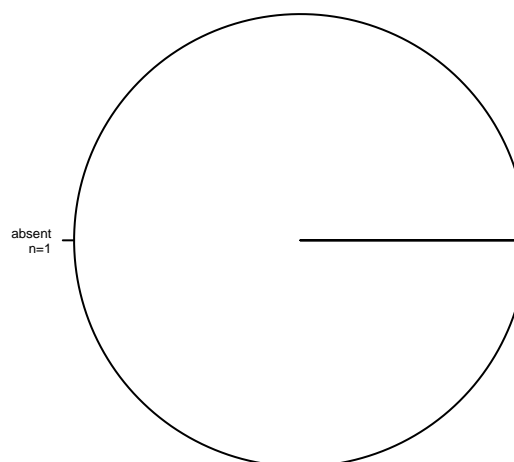**like:H1−0**

absent
n=1

absent | n=1

Gain: Notgen,Platyhelminta,Lcom,Concor,NA
Presence Eukaryota prob = 0.00
Present: 5
Losses: NA

Frequency
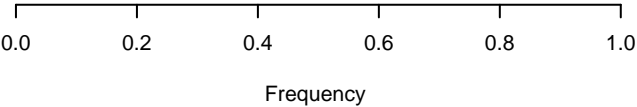
LinkerHistone.HG1.18
like:H1−0

Gain: Porifera,NA
Presence Eukaryota prob = 0.00
Present: 4
Losses: NA

absent
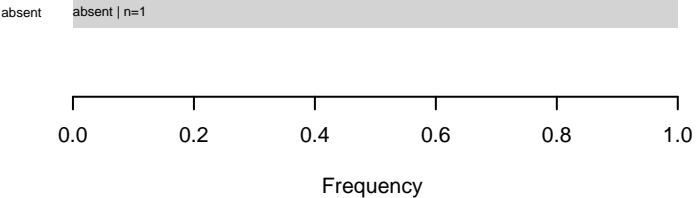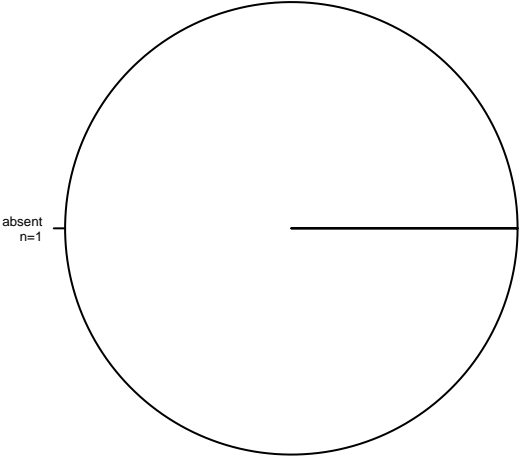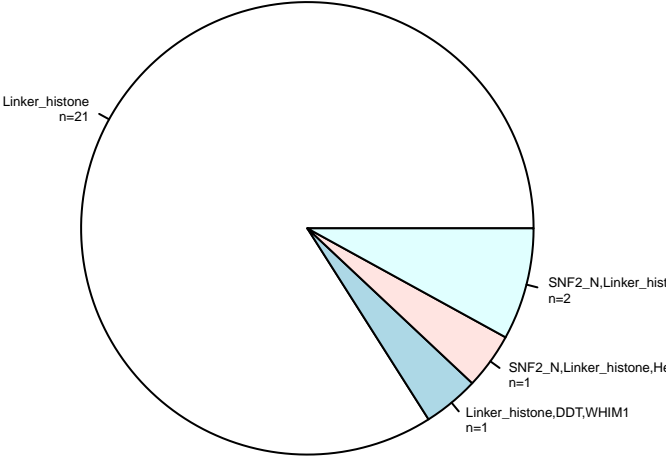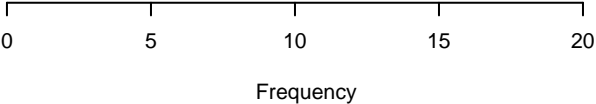n=1

absent   absent | n=1

Frequency

LinkerHistone.HG1.19
like:H1−0
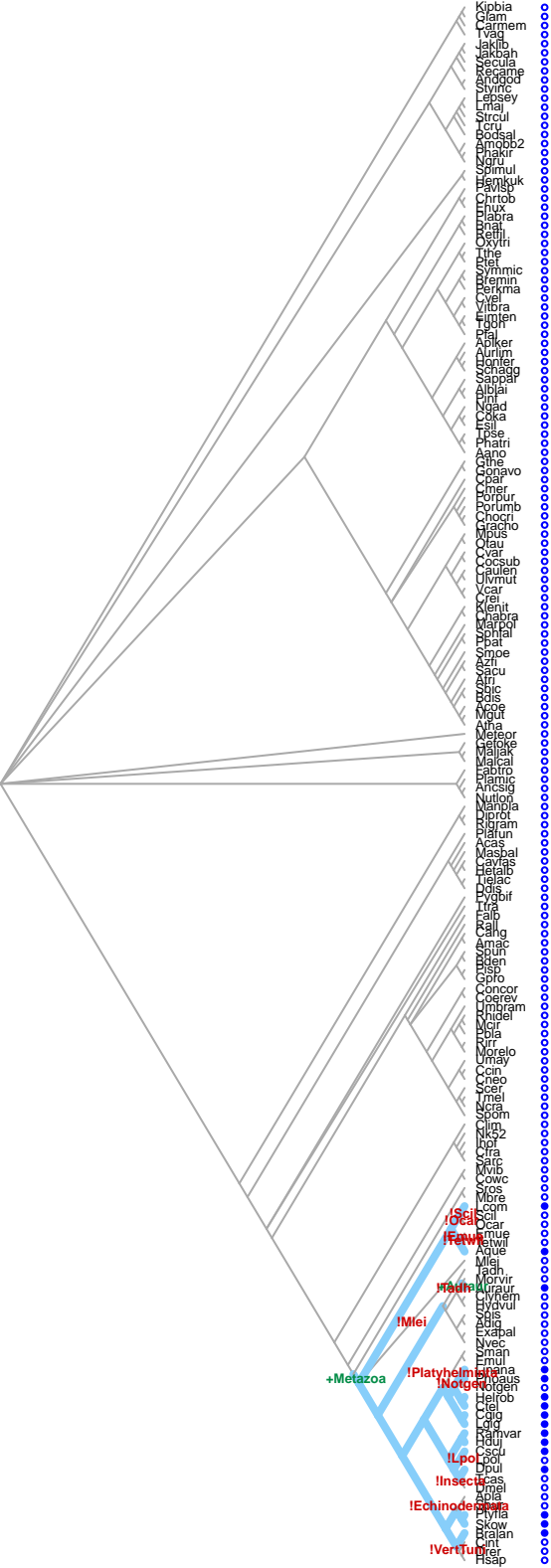
Gain: Metazoa,Auraur,NA
Presence Eukaryota prob = 0.01
Present: 16
Losses: NA

absent
n=1

absent | n=1

Frequency

LinkerHistone.HG1.2
SHPRH

Kipbia
Glam
Carmem
Twad
Jaklib
Jakbah
Secula
Recame
Anogod
Styinc
Lepsey
Lmaj
Strcul
Tcru
Bodsal
Amobo2
Phakir
Ngru
Spimul
Hemkuk
Cavisp
Chrtob
Ehux
Piabra
+Bnat — Bnat
Retil
Oxytri
Tthe
Ptet
Symmic
Stemin
+Perkma — Perkma
Cvel
Vitbra
Emilen
Ug01
Pfal
Aplker
Aurim
Gonfer
+Schagg — Schagg
Sappar
Alblai
Ninf
Ngad
Ccka
Esil
Tpse
Phatri
Aano
Gthe
Gonavo
Gpar
Ctmer
Porpur
Porumb
Chocri
Gracho
Mpus
Otau
Cvar
Cocsub
Caulen
Ulvmut
V.car
Crein
Klenit
Chabra
Marpol
Pphal
Pbat
Smoe
Azfi
Sacu
Atri
Sblc
Pdis
Acoe
Mgut
Atha
Meteor
+Gefoke — Gefoke
Maljak
Malcal
Eabtro
Plamic
Ancsig
Nutloo
Manpla
Diprot
Rigram
Plarun
Acas
Maspal
Cavras
Hetalb
Tjejac
Dpis
Pygbif
Ttra
Falb
Rall
Cang
Amac
Spurn
Bden
Bisp
Gpro
Concor
Coerev
Umbram
Rhidel
Mcir
Pbla
Rirr
Morelo
Umay
Ccin
Cneo
Scer
Tmel
Ncra
Spom
Clim
Nks2
Ihot
Cfra
Carc
Mvib
+Lcom — Cowc
Sros
Mbre
Scil
Ocar
Emue
Tetwil
Ague
Mlei
Tadh
Morvir
Auraur
Clyhem
Hydvul
Solis
Adig
Exabal
Nvec
Sman
Emul
Linana
Rhoaus
Notgen
Helrob
Ctel
Cdig
Lgig
Lold
Ramvar
Hrui
Cscu
Pcn
Dpul
Tcas
Dmel
+Apla — Dpla
Spur
Ptyfla
Skow
Braian
Cint
+Vertebrata — Drer
Hsap

Gain: Vertebrata,Apla,Lcom,Choanoflagellata,Gefoke,Schagg,Perkma,Bnat,N

Presence Eukaryota prob = 0.00

Present: 10

Losses: NA

LinkerHistone.HG1.20
H1-0
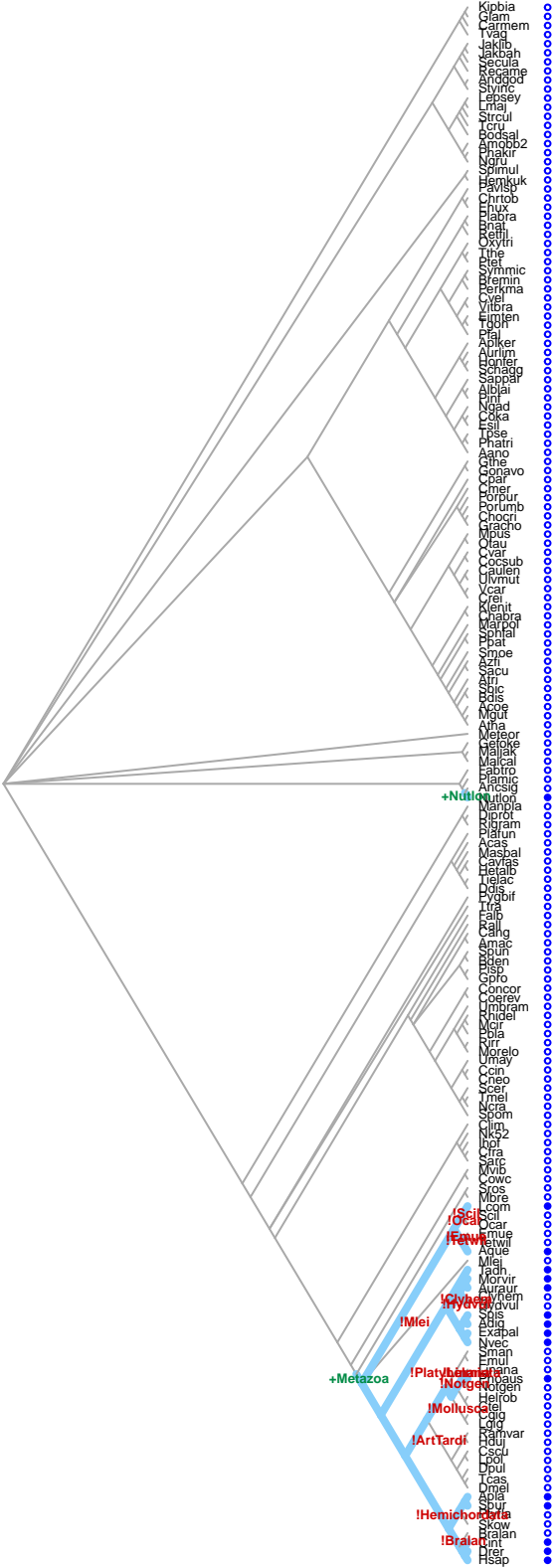
Gain: Metazoa,Nutlon,NA
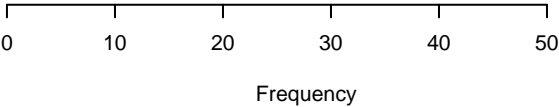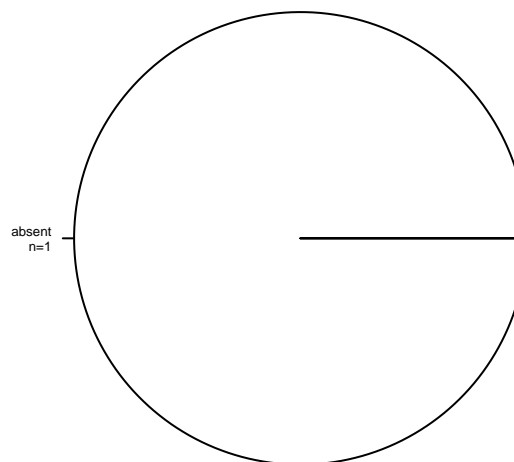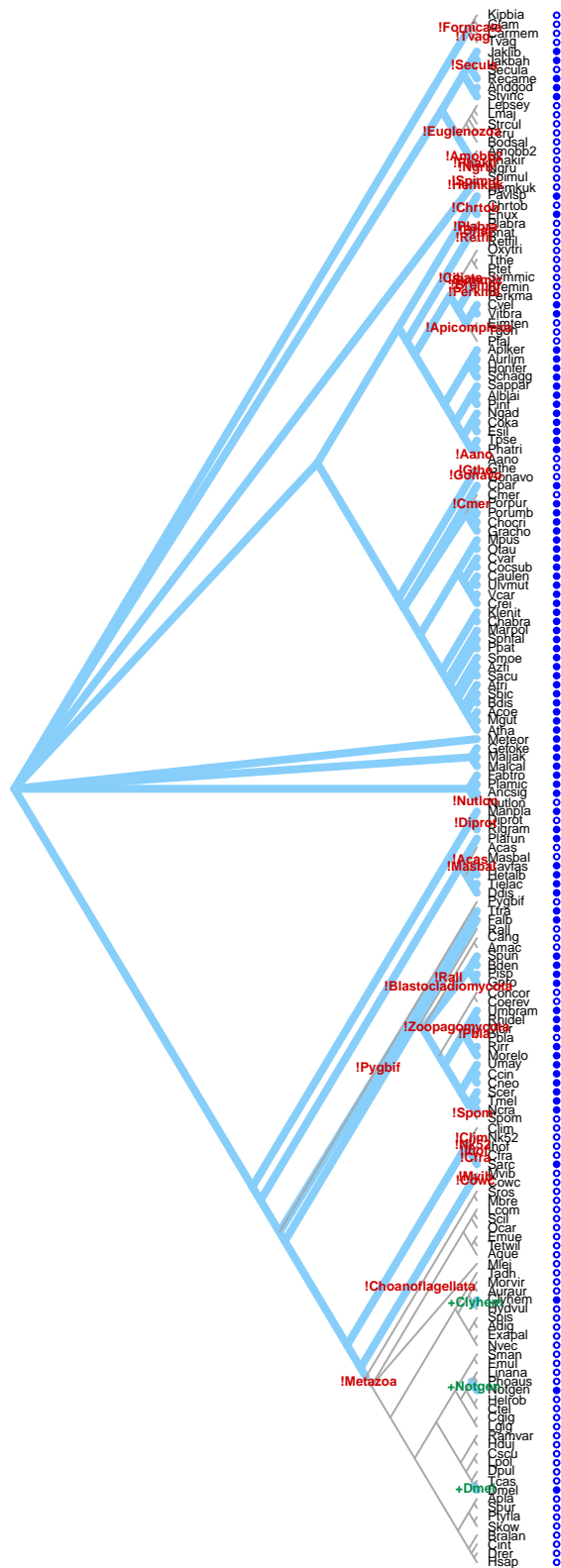Presence Eukaryota prob = 0.05
Present: 16
Losses: NA
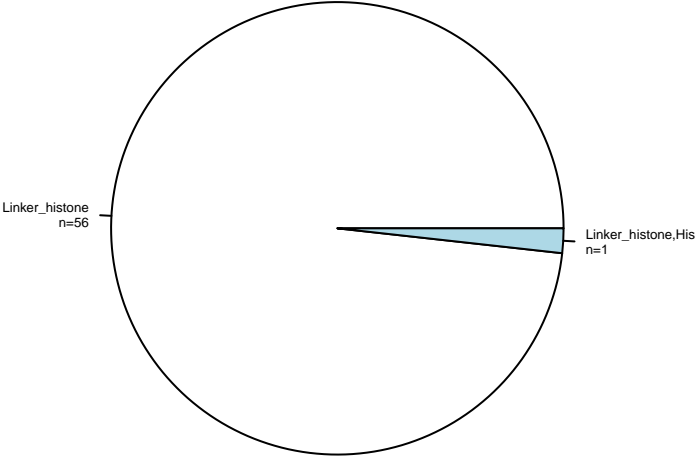
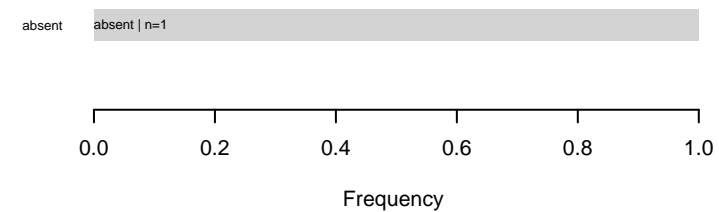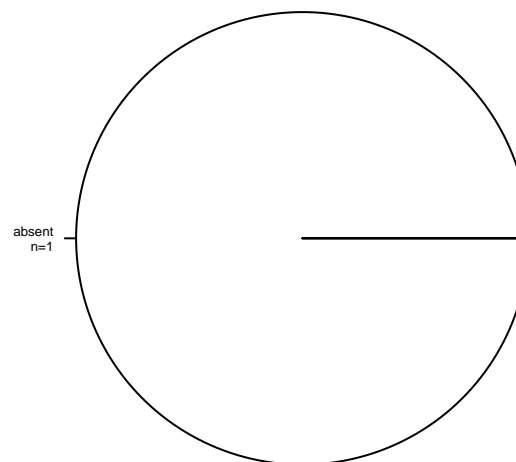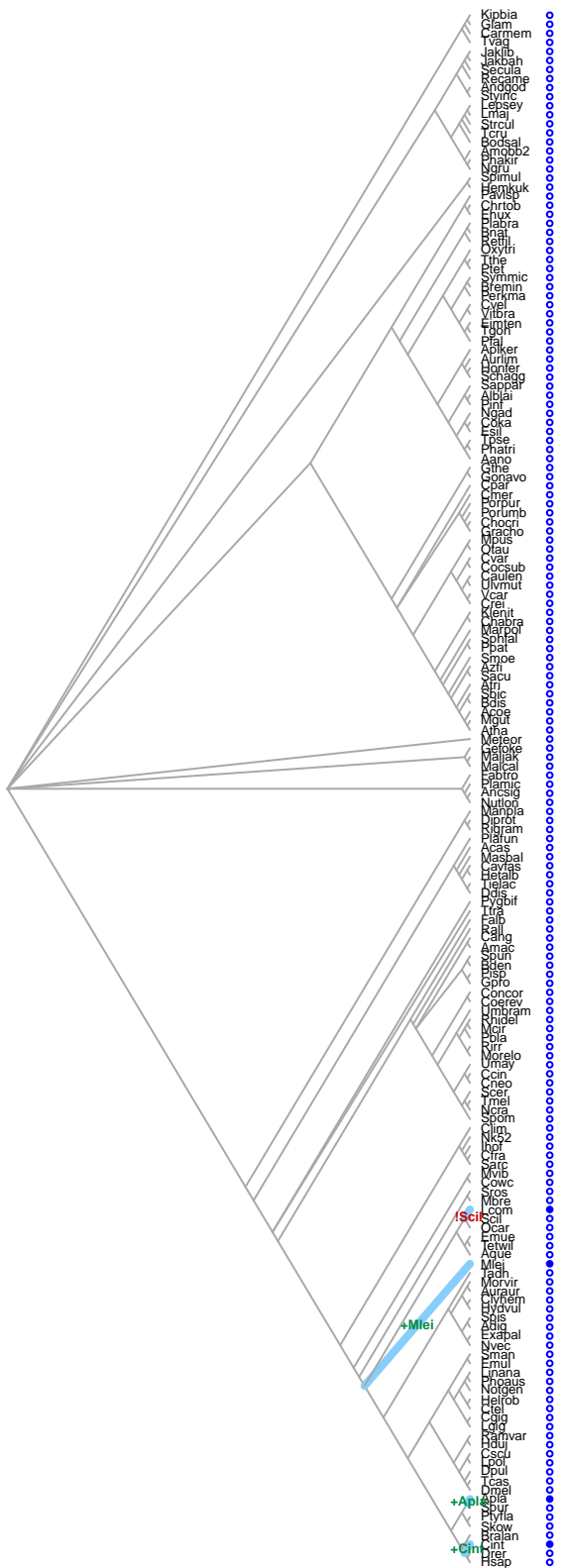Linker_histone,Histone   Linker_histone,Histone | n=1

Linker_histone   Linker_histone | n=56

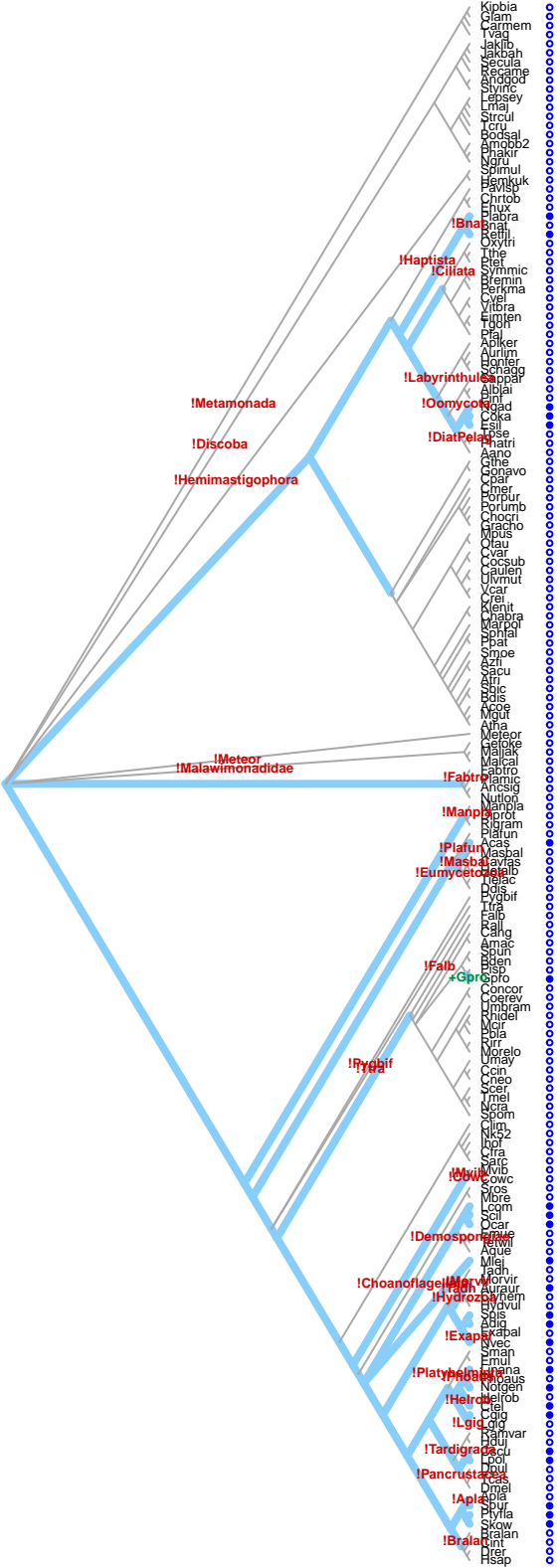Frequency

LinkerHistone.HG1.3
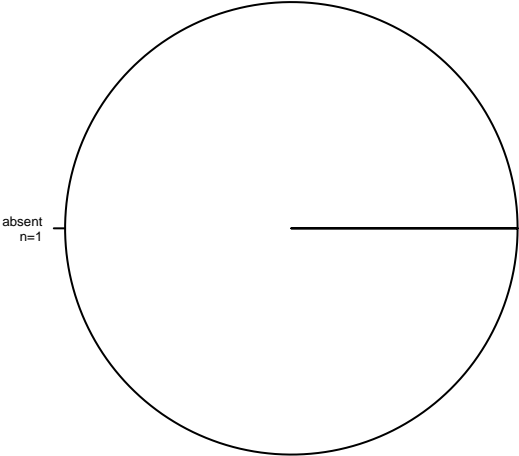**like:H1−0/H1−1/H1−2/H1−3/H1−4/H1−5/H1−6**
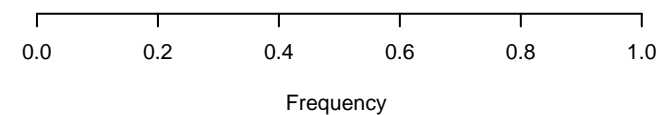
Gain: Dmel,Notgen,Clyhem,NA
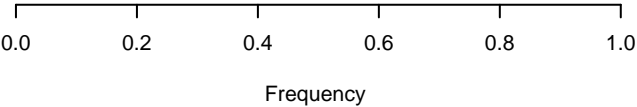Presence Eukaryota prob = 1.00
Present: 83
Losses: NA

absent
n=1

absent   absent | n=1

Frequency

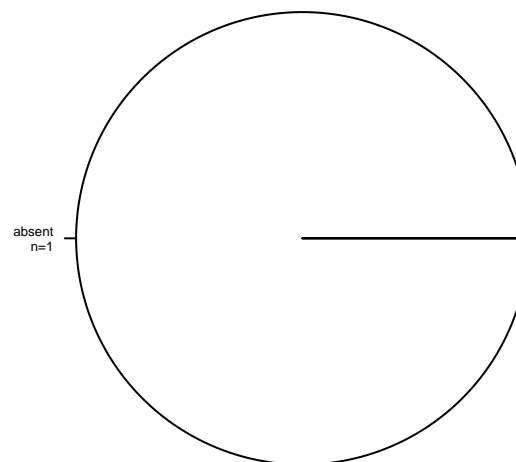0.0   0.2   0.4   0.6   0.8   1.0

LinkerHistone.HG1.4
like:H1-0/H1-1/H1-2/H1-3/H1-4/H1-5/H1-6/H1-8/H1-10/HP1BP3/SHPRH

Gain: Cint,Apla,Mlei,NA
Presence Eukaryota prob = 0.00
Present: 4
Losses: NA

absent
n=1

absent | n=1

Frequency

LinkerHistone.HG1.5
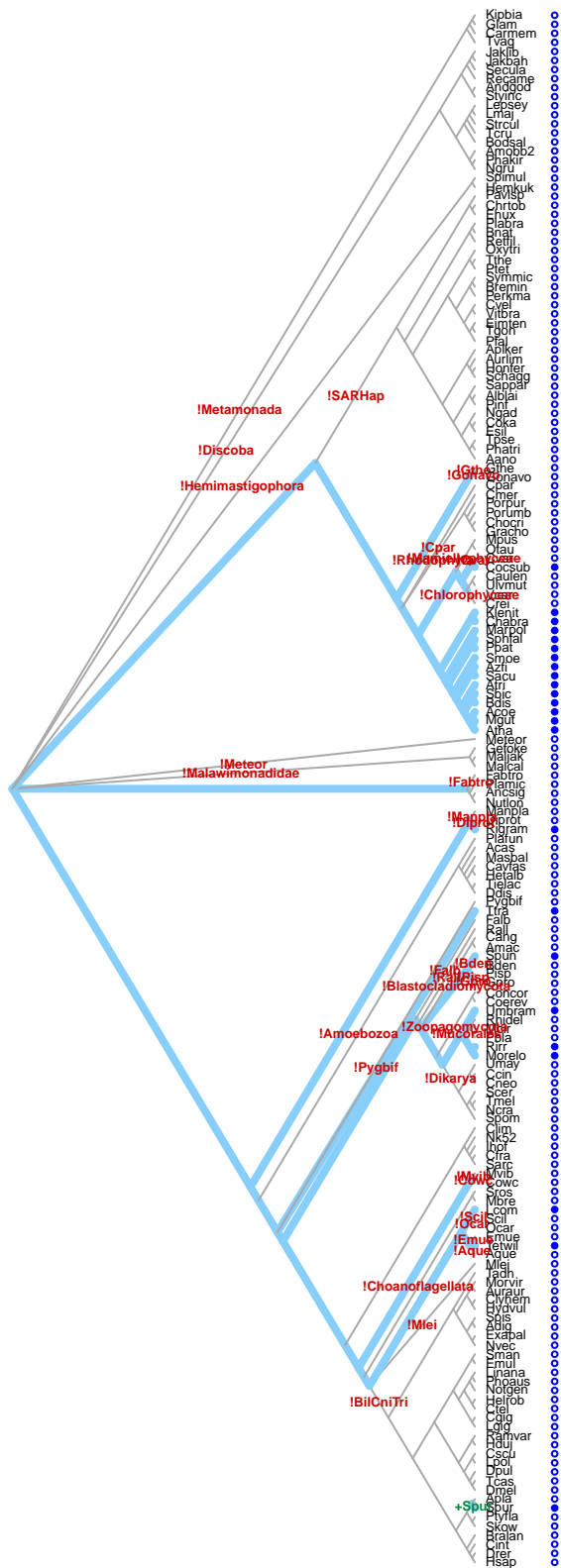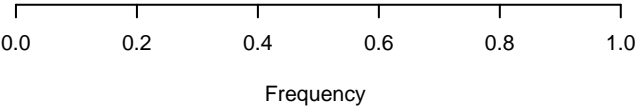**like:H1-0/H1-1/H1-2/H1-3/H1-4/H1-5/H1-6/H1-8/H1-10/HP1BP3/SHPRH**

Gain: Gpro,NA
Presence Eukaryota prob = 0.95
Present: 24
Losses: NA

absent
n=1

absent | absent | n=1

Frequency

LinkerHistone.HG1.6
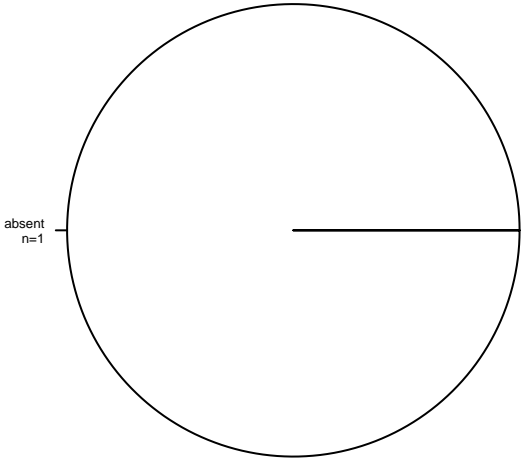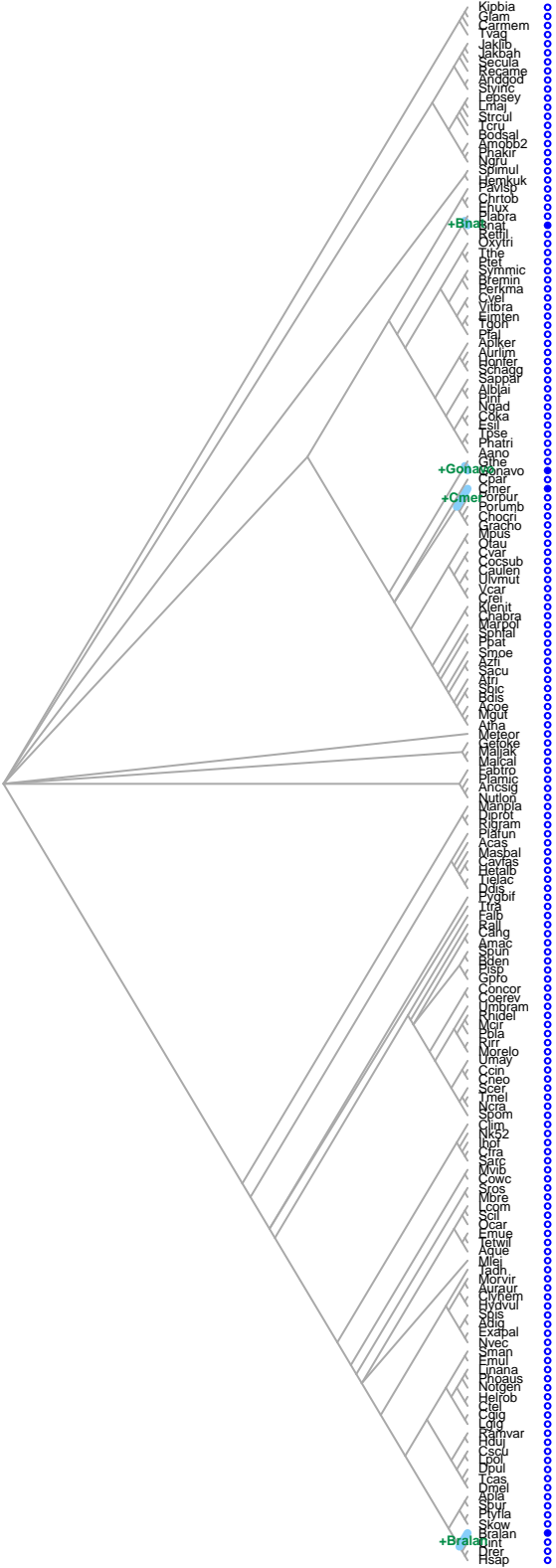**like:H1-0/H1-1/H1-2/H1-3/H1-4/H1-5/H1-6/H1-8/H1-10/HP1BP3/SHPRH**

Gain: Spur,NA
Presence Eukaryota prob = 0.98
Present: 24
Losses: NA

absent
n=1
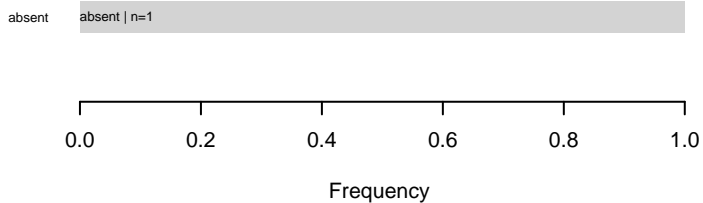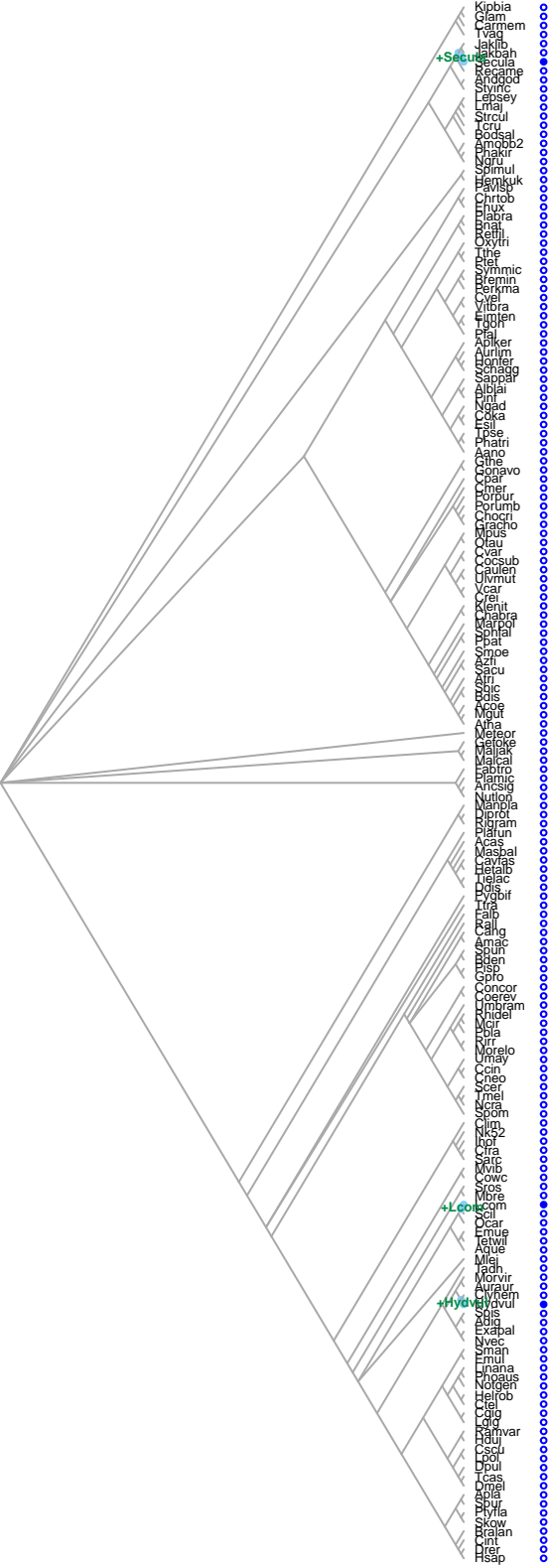
absent | n=1

Frequency

LinkerHistone.HG1.7
like:H1-8/HP1BP3
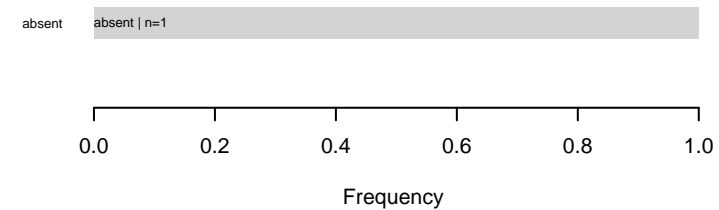
Gain: Bralan,Cmer,Gonavo,Bnat,NA
Presence Eukaryota prob = 0.01
Present: 4
Losses: NA

absent
n=1

absent | n=1

Frequency

LinkerHistone.HG1.8
like:H1−0/H1−1/H1−2/H1−3/H1−4/H1−5/H1−6

Gain: Hydvul,Lcom,Secula,NA
Presence Eukaryota prob = 0.00
Present: 3
Losses: NA

absent
n=1

absent | n=1

Frequency
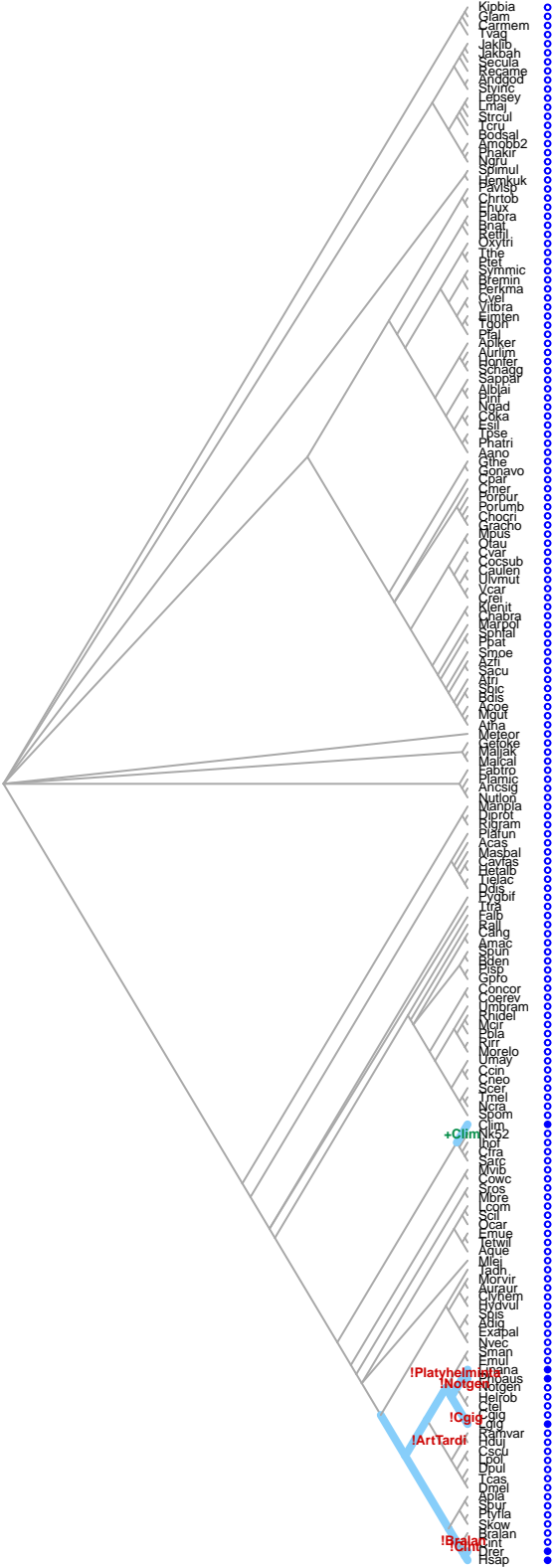
LinkerHistone.HG1.9
HP1BP3

Linker_histone
n=5

RFX_DNA_binding,Linker_histone
n=2

+Clim

!Platyhelminthes
!Notger
!Cgig
!ArtTardi
!Brala
!Clim
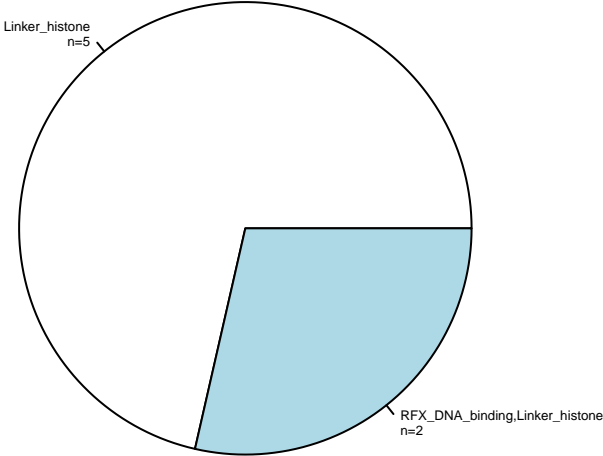
RFX_DNA_binding,Linker_histone   RFX_DNA_binding,Linker_histone | n=2

Linker_histone   Linker_histone | n=5

Gain: Clim,NA
Presence Eukaryota prob = 0.00
Present: 6
Losses: NA

Frequency