Matrix Report (Sharkey et al)

Code

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Get report

Hide

```
mt_data=parse_matrix(char_matrix, coding_states_report)
```

Report

N of chrs with inapplicable states

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```
mt_data$contains_inapplicable %>% length
```

```
[1] 278
```

N of chrs with missing states

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```
    mt_data$contains_missing %>% length
```

```
[1] 392
```

Chrs with polymorphic states

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```
    mt_data$contains_polymorph
```

```
[1] "CHAR:17"  "CHAR:342" "CHAR:351" "CHAR:352" "CHAR:357" "CHAR:359" "CHAR:374" "CHAR:378" "CHAR:390"
```

Chrs with unused states

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```
    mt_data$unused_chr_states
```

```
$unused_matrix
$unused_matrix$`CHAR:24`
[1] "STATE:5"

$unused_matrix$`CHAR:36`
[1] "STATE:1"

$unused_matrix$`CHAR:37`
[1] "STATE:3"

$unused_matrix$`CHAR:49`
[1] "STATE:5"

$unused_matrix$`CHAR:356`
[1] "STATE:3"

$unused_matrix$`CHAR:367`
[1] "STATE:4" "STATE:5"

$unused_matrix$`CHAR:380`
[1] "STATE:1"


$unused_chrs_report
$unused_chrs_report$`CHAR:57`
[1] "STATE:4" "STATE:5"

$unused_chrs_report$`CHAR:60`
[1] "STATE:3"

$unused_chrs_report$`CHAR:61`
[1] "STATE:5" "STATE:6" "STATE:7"
```

Groups of characters with the same sequnce pattern

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```
    mt_data$same_chrs_patterns
```

```
[[1]]
[1] "CHAR:23" "CHAR:67"

[[2]]
[1] "CHAR:152" "CHAR:194"

[[3]]
[1] "CHAR:198" "CHAR:228"

[[4]]
[1] "CHAR:281" "CHAR:291" "CHAR:317" "CHAR:339"

[[5]]
[1] "CHAR:377" "CHAR:379"

[[6]]
[1] "CHAR:383" "CHAR:385" "CHAR:386" "CHAR:388"
```

Number of missing states “?” per taxon

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```
    cbind(names(mt_data$taxa_missing_states), unname(mt_data$taxa_missing_states))
```

```
      [,1]             [,2]
 [1,] "Atomacera"      "389"
 [2,] "Derecyrta"      "389"
 [3,] "Paramblynotus"  "373"
 [4,] "Sirex"          "349"
 [5,] "Australomymar"  "348"
 [6,] "Cephalcia"      "346"
 [7,] "Psilocharis"    "346"
 [8,] "Corynis"        "343"
 [9,] "Decameria"      "343"
[10,] "Hartigia"       "343"
[11,] "Runaria"        "343"
[12,] "Sterictiphora"  "343"
[13,] "Tenthredo"      "343"
[14,] "Austronia"      "341"
[15,] "Peradenia"      "341"
[16,] "Chiloe"         "329"
[17,] "Foersterella"   "328"
[18,] "Coccobius"      "296"
[19,] "Xyela"          "296"
[20,] "Micropterix"    "99"
[21,] "Chrysopa"       "98"
[22,] "Panorpa"        "98"
[23,] "Urocerus"       "98"
[24,] "Dinapsis"       "97"
[25,] "Spalangia"      "97"
[26,] "Urosigalphus"   "97"
[27,] "Ycaploca"       "96"
[28,] "Orgilus"        "79"
[29,] "Telenomus"      "78"
[30,] "Plumarius"      "75"
[31,] "Sparasion"      "67"
[32,] "Ismarus"        "61"
[33,] "Notofenusa"     "50"
[34,] "Ceraphron"      "47"
[35,] "Pimpla"         "47"
[36,] "Brachygaster"   "46"
[37,] "Evaniella"      "46"
[38,] "Isostasius"     "46"
[39,] "Phaenoserphus"  "46"
[40,] "Rhopalosoma"    "46"
[41,] "Orussobaius"    "37"
[42,] "Heteroperreyia" "36"
[43,] "Mymaromma"      "23"
[44,] "Lagynodes"      "22"
[45,] "Austroserphus"  "15"
[46,] "Megischus"      "15"
[47,] "Macroxyela"     "7"
[48,] "Cales"          "5"
[49,] "Monoctenus"     "5"
[50,] "Tremex"         "5"
[51,] "Athalia"        "4"
[52,] "Cirrospilus"    "3"
[53,] "Gonatocerus"    "3"
[54,] "Aulacus"        "2"
[55,] "Coccophagus"    "2"
[56,] "Maaminga"       "2"
[57,] "Metapolybia"    "2"
[58,] "Syntexis"       "2"
[59,] "Acanthochalcis" "1"
[60,] "Aleiodes"       "1"
[61,] "Cephalonomia"   "1"
[62,] "Cephus"         "1"
[63,] "Cleonymus"      "1"
[64,] "Diplolepis"     "1"
[65,] "Doryctes"       "1"
[66,] "Dusona"         "1"
```

```
 [67,] "Eurytoma"       "1"
 [68,] "Gasteruption"   "1"
 [69,] "Helorus"        "1"
 [70,] "Labena"         "1"
 [71,] "Lymeon"         "1"
 [72,] "Megaspilus"     "1"
 [73,] "Megastigmus"    "1"
 [74,] "Nasonia"        "1"
 [75,] "Onycholyda"     "1"
 [76,] "Orussus"        "1"
 [77,] "Parnips"        "1"
 [78,] "Periclistus"    "1"
 [79,] "Pristaulacus"   "1"
 [80,] "Proplatygaster" "1"
 [81,] "Pseudofoenus"   "1"
 [82,] "Rhysipolis"     "1"
 [83,] "Sapyga"         "1"
 [84,] "Schlettererius" "1"
 [85,] "Vanhornia"      "1"
 [86,] "Wroughtonia"    "1"
 [87,] "Xiphydria"      "1"
 [88,] "Zagryphus"      "1"
 [89,] "Anacharis"      "0"
 [90,] "Archaeoteleia"  "0"
 [91,] "Belyta"         "0"
 [92,] "Evania"         "0"
 [93,] "Ibalia"         "0"
 [94,] "Megalyra"       "0"
 [95,] "Melanips"       "0"
 [96,] "Monomachus"     "0"
 [97,] "Orthogonalys"   "0"
 [98,] "Pantolytomyia"  "0"
 [99,] "Pelecinus"      "0"
[100,] "Pison"          "0"
[101,] "Poecilopsilus"  "0"
[102,] "Proctotrupes"   "0"
[103,] "Ropronia"       "0"
[104,] "Stangeella"     "0"
[105,] "Taeniogonalos"  "0"
```