Group 7

Group 8 *woodland**

Group 9 *grassland**

Group 10

Group 11 *riparian**

Group 12

Group 13 *kopje**

Group 14

Group 3 *small herbivores*
D. korrigum
H. amphibius
K. ellipsiprymnus
O. ourebi
P. capensis
P. africanus
R. redunca
R. pumilio
T. oryx
T. scriptus

Group 4 *large grazers*
A. melampus
A. buselaphus
C. taurinus
E. quagga
N. granti
E. thomsonii

Group 5 *hyraxes*
H. brucei
P. capensis

Group 6
G. camelopardalis
L. africana
M. kirkii
P. anubis
S. caffer

Group 1 *large carnivores*
A. jubatus
C. crocuta
L. pictus
P. leo
P. pardus

Group 2 *small carnivores*
C. aureus
C. mesomelas
C. caracal
L. serval

a

Group 7

Group 8 *woodland**

Group 9 *grassland**

Group 10

Group 11 *riparian**

Group 12

Group 13 *kopje**

Group 14

Group 3 *small herbivores*
O. ourebi
K. ellipsiprymnus
T. scriptus
D. korrigum
P. africanus
P. capensis
R. redunca
R. pumilio
H. amphibius
T. oryx

Group 4 *large grazers*
C. taurinus
N. granti
E. quagga
A. melampus
E. thomsonii
A. buselaphus

Group 5 *hyraxes*
H. brucei
P. capensis

Group 6
P. anubis
G. camelopardalis
M. kirkii
S. caffer
L. africana

Group 1 *large carnivores*
A. jubatus
L. pictus
C. crocuta
P. leo
P. pardus

Group 2 *small carnivores*
C. caracal
C. aureus
C. mesomelas
L. serval

b

c

```
1  "guides": [{"name": "top_guide", "y": 0}, ..., {"name": "plant_guide", "x": 125}],
2  "constraintDefinitions": [
3    {
4      "name": "plants",
5      "sets": {"partition": "group1", "include": [7,8,9,10,11,12,13,14]},        8 sets
6      "forEach": [
7        {"constraint": "position", "position": "right", "of": "plant_guide", "gap": 185},      129 constraints
8        {"constraint": "position", "position": "left", "of": "herbivore_guide", "gap": 200},   129 constraints
9        {"constraint": "position", "position": "below", "of": "top_guide", "gap": 0},          129 constraints
10       {"constraint": "position", "position": "above", "of": "bottom_guide", "gap": 0},       129 constraints
11       {"constraint": "padding", "amount": 1},                          padding added to 129 nodes
12       {"constraint": "cluster"}                                        2632 new edges added
13      ]
14    },
15    {
16      "sets": ["plants"],                                                      1 set
17      "forEach": [{"constraint": "order", "axis": "y", "by": "group1", "gap": 25}]    258 constraints
18    },
19    {
20      "name": "herbivores",
21      "sets": {"partition": "group1", "include": [3,4,5,6]},                   4 sets
22      "forEach": [
23        {"constraint": "align", "axis": "y"},                                  4 constraints
24        {"constraint": "position", "position": "right", "of": "herbivore_guide", "gap": 185},  23 constraints
25        {"constraint": "position", "position": "left", "of": "carnivore_guide", "gap": 185},   23 constraints
26        {"constraint": "position", "position": "below", "of": "top_guide", "gap": 250},        23 constraints
27        {"constraint": "position", "position": "above", "of": "bottom_guide", "gap": 50},      23 constraints
28        {"constraint": "hull"}                                           4 WebCoLa groups created
29      ]
30    },
31    {
32      "sets": ["herbivores"],                                                  1 set
33      "forEach": [{"constraint": "order", "axis": "y", "by": "group1", "gap": 75}]    31 constraints
34    },
35    {
36      "name": "carnivores",                                                    2 sets
37      "sets": {"partition": "group1", "include": [1,2]},
38      "forEach": [
39        {"constraint": "align", "axis": "y"},                                  2 constraints
40        {"constraint": "position", "position": "right", "of": "carnivore_guide", "gap": 185},  9 constraints
41        {"constraint": "position", "position": "below", "of": "top_guide", "gap": 450}         9 constraints
42      ]
43    },
44    {
45      "sets": ["carnivores"],                                                  1 set
46      "forEach": [
47        {"constraint": "order", "axis": "x", "by": "group1", "reverse": true, "gap": 40},  9 constraints
48        {"constraint": "order", "axis": "y", "by": "group1", "gap": 40}                    9 constraints
49      ]
50    }
51  ]
```