

## Appendix 1 - Tongue Twister Configuration

```
{
  "Tree": "(Latin,(Romanian,(((Walloon,French),(((Portuguese,PortugueseBrazil),Spanish),
Catalan)),(Friulian,Italian))))";
  "NumberOfStates": 83,
  "McmcSettings": {
    "OnlyCompleteWords": "No",
    "Model": "Custom",
    "CalcMarginal": "No",
    "UseEigenSystem": "No",
    "NumCycles": 100000,
    "PrintFreq": 1,
    "SampleFreq": 100,
    "TreeLengthPriorVal": 0.15
  },
  "Taxa": ["Latin", "French", "Spanish", "Italian", "PortugueseBrazil", "Portuguese", "Catalan",
"Walloon", "Friulian", "Romanian"],
  "PriorFrequencies": [2.053196,0.979935,4.479701,4.293047,3.639757,4.013066,2.846477,
2.939804,1.213252,0.093327,4.199720,0.139991,1.726552,4.106393,3.173122,2.053196,0.886608,
2.799813,0.233318,0.233318,1.493234,2.146524,1.959869,1.633224,1.026598,0.046664,3.173122,
0.093327,0.839944,0.046664,0.046664,0.746617,0.046664,3.126458,4.013066,1.399907,1.726552,
0.233318,0.979935,4.199720,0.046664,1.399907,0.046664,0.046664,0.186654,0.046664,0.046664,
3.826412,0.513299,2.613159,1.259916,0.046664,0.373308,0.046664,0.653290,0.046664,0.513299,
0.466636,0.046664,0.326645,1.353243,0.093327,0.279981,2.659823,0.046664,0.046664,0.466636,
0.093327,0.046664,0.046664,0.279981,2.939804,0.373308,0.139991,0.046664,0.046664,0.046664,
0.139991,0.699953,0.746617,0.559963,0.653290,0.559963],
  "PartitionSets": [{"Name": "e", "Set": [1, 6]},{ "Name": "i", "Set": [3, 20]},{ "Name": "a", "Set":
[5, 41]},{ "Name": "u", "Set": [13, 60]},{ "Name": "o", "Set": [17, 38]},{ "Name": "ε", "Set": [12]}
,{ "Name": "ø", "Set": [73]},{ "Name": "Nasal Vowel", "Set": [27, 28, 29, 32, 42, 48, 52, 53, 56, 72]}
,{ "Name": "Vowel", "Set": [9, 11, 23, 24, 25, 31, 43, 45, 46, 51, 55, 59, 62, 64, 65, 69, 74, 76,
78]},{ "Name": "Nasal Consonant", "Set": [2, 4, 22, 71]},{ "Name": "Non Syllabic Sonorant", "Set": [10,
14, 15, 47]},{ "Name": "Consonant", "Set": [0, 7, 8, 16, 18, 19, 21, 26, 30, 33, 34, 35, 36, 37, 39,
40, 44, 49, 50, 54, 57, 58, 61, 63, 66, 67, 68, 70, 75, 77, 79, 80, 81, 82]}],
  "Words": [
    { "Name": "Woman-Primary", "Data": [
      { "Taxon": "Latin", "Segments": [0, 1, -1, 2, 3, -1, 4, -1, 5]},
      { "Taxon": "French", "Segments": [0, 5, -1, 2, -1, -1, -1, -1, -1]},
      { "Taxon": "Spanish", "Segments": [-1, 6, -1, 2, -1, 7, 8, -1, 5]},
      { "Taxon": "Italian", "Segments": [0, 6, 2, 2, 3, -1, 4, -1, 5]},
      { "Taxon": "PortugueseBrazil", "Segments": [0, 6, -1, 2, 6, -1, -1, -1, 9]},
      { "Taxon": "Portuguese", "Segments": [0, 6, -1, 2, 10, -1, -1, -1, 9]},
      { "Taxon": "Catalan", "Segments": [0, 6, -1, 2, -1, 7, 8, -1, 5]},
      { "Taxon": "Walloon", "Segments": [0, 11, -1, 2, -1, -1, -1, -1, -1]},
      { "Taxon": "Friulian", "Segments": [0, 12, -1, 2, 3, -1, 4, -1, 6]},
      { "Taxon": "Romanian", "Segments": [0, 6, -1, 2, 6, -1, -1, 10, 6]}
    ]},
    { "Name": "Woman-Mulier", "Data": [
      { "Taxon": "Latin", "Segments": [2, 13, 14, 3, 6, 15, 6, 2]},
      { "Taxon": "Spanish", "Segments": [2, 13, 16, -1, 6, 8, -1, -1]},
      { "Taxon": "Italian", "Segments": [2, 17, 18, 18, 6, -1, -1, -1]},
      { "Taxon": "PortugueseBrazil", "Segments": [2, 13, 18, -1, 6, 19, -1, -1]},
      { "Taxon": "Portuguese", "Segments": [2, 13, 18, -1, 6, 8, -1, -1]},
      { "Taxon": "Catalan", "Segments": [2, 13, 18, -1, 6, -1, -1, -1]},
      { "Taxon": "Friulian", "Segments": [2, 13, -1, -1, 20, 15, -1, -1]},
      { "Taxon": "Romanian", "Segments": [2, 13, -1, 10, 6, 15, 6, -1]}
    ]},
    { "Name": "Woman-Domina", "Data": [
      { "Taxon": "Latin", "Segments": [21, 17, 2, 3, 4, 5]},
    ]}
  ]
}
```

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```
{
  "Taxon": "French",      "Segments": [21, 5, 2, -1, -1, -1]},
  "Taxon": "Spanish",    "Segments": [21, 17, -1, -1, 22, 5]},
  "Taxon": "Italian",    "Segments": [21, 23, 4, -1, 4, 5]},
  "Taxon": "PortugueseBrazil", "Segments": [21, 17, -1, -1, 4, 9]},
  "Taxon": "Portuguese",  "Segments": [21, 17, -1, -1, 4, 9]},
  "Taxon": "Catalan",    "Segments": [21, 23, -1, -1, 4, 24]},
  "Taxon": "Walloon",    "Segments": [21, 5, 2, -1, -1, -1]},
  "Taxon": "Friulian",   "Segments": [21, 23, -1, -1, 4, 6]},
  "Taxon": "Romanian",   "Segments": [21, 25, 2, -1, 4, 24]}
}],
{
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    {"Taxon": "Spanish",    "Segments": [3, 4, 0, 5, 4, 26, 6, -1]},
    {"Taxon": "Italian",    "Segments": [-1, -1, 0, 5, 4, 26, 6, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [28, -1, 0, 29, -1, 30, 3, -1]},
    {"Taxon": "Portuguese",  "Segments": [28, -1, 0, 29, -1, 26, 31, -1]},
    {"Taxon": "Walloon",    "Segments": [12, -1, 0, 27, -1, -1, -1, -1]}
  ]
},
{
  "Name": "Child-Ninnus", "Data": [
    {"Taxon": "Spanish",    "Segments": [4, 3, 22, 17]},
    {"Taxon": "Italian",    "Segments": [4, 3, 4, 17]},
    {"Taxon": "PortugueseBrazil", "Segments": [4, 6, 4, 32]},
    {"Taxon": "Portuguese",  "Segments": [4, 6, 4, 32]},
    {"Taxon": "Catalan",    "Segments": [4, 6, 4, -1]},
    {"Taxon": "Friulian",   "Segments": [4, 3, 4, 3]}
  ]
},
{
  "Name": "Wife-Primary", "Data": [
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    {"Taxon": "Spanish",    "Segments": [6, 33, 34, 17, -1, 33, 5]},
    {"Taxon": "Italian",    "Segments": [-1, 33, 34, 23, -1, 35, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [3, 33, 34, 17, -1, 35, 5]},
    {"Taxon": "Portuguese",  "Segments": [31, 36, 34, 17, -1, 35, 9]},
    {"Taxon": "Catalan",    "Segments": [24, 33, 34, 23, -1, 35, 24]},
    {"Taxon": "Friulian",   "Segments": [-1, 33, 34, 17, -1, 33, 6]}
  ]
},
{
  "Name": "Husband-Primary", "Data": [
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    {"Taxon": "Spanish",    "Segments": [2, 5, 8, 3, 37, 17, -1]},
    {"Taxon": "Italian",    "Segments": [2, 5, 15, 3, 26, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [2, 5, 8, 3, 21, 13, -1]},
    {"Taxon": "Portuguese",  "Segments": [2, 9, 8, 3, 37, 13, -1]},
    {"Taxon": "Catalan",    "Segments": [2, 5, 8, 3, 26, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [2, 5, 15, 20, 26, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [2, 24, 15, 3, 26, -1, -1]}
  ]
},
{
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    {"Taxon": "French",     "Segments": [6, -1, 34, 13, -1, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [6, 33, 34, 17, -1, 33, 17, -1]},
    {"Taxon": "Italian",    "Segments": [-1, 33, 34, 23, -1, 35, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [3, 33, 34, 17, -1, 35, 13, -1]},
    {"Taxon": "Portuguese",  "Segments": [31, 36, 34, 17, -1, 35, 13, -1]},
    {"Taxon": "Catalan",    "Segments": [24, 33, 34, 23, -1, 33, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [-1, 33, 34, 38, -1, 33, -1, -1]}
  ]
}
```

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```
}},
{"Name": "Husband-Socius", "Data": [
  {"Taxon": "Latin", "Segments": [33, 17, 39, 3, 13, 33]},
  {"Taxon": "Romanian", "Segments": [33, 17, 40, -1, -1, -1]}
]},
{"Name": "Mother-Primary", "Data": [
  {"Taxon": "Latin", "Segments": [2, 41, 26, 15, 6, 2]},
  {"Taxon": "French", "Segments": [2, 6, -1, 19, -1, -1]},
  {"Taxon": "Spanish", "Segments": [2, 5, 37, 8, 6, -1]},
  {"Taxon": "Italian", "Segments": [2, 5, 21, 15, 6, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [2, 42, -1, -1, -1, -1]},
  {"Taxon": "Portuguese", "Segments": [2, 42, -1, -1, -1, -1]},
  {"Taxon": "Catalan", "Segments": [2, 5, -1, 8, 24, -1]},
  {"Taxon": "Walloon", "Segments": [2, 6, -1, 15, -1, -1]},
  {"Taxon": "Friulian", "Segments": [2, 5, -1, 15, 3, -1]}
]},
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  {"Taxon": "French", "Segments": [34, 6, -1, 19, -1]},
  {"Taxon": "Spanish", "Segments": [34, 5, 37, 8, 6]},
  {"Taxon": "Italian", "Segments": [34, 5, 21, 15, 6]},
  {"Taxon": "PortugueseBrazil", "Segments": [34, 43, -1, -1, -1]},
  {"Taxon": "Portuguese", "Segments": [34, 43, -1, -1, -1]},
  {"Taxon": "Catalan", "Segments": [34, 5, -1, 8, 24]},
  {"Taxon": "Walloon", "Segments": [34, 12, -1, 15, -1]},
  {"Taxon": "Friulian", "Segments": [34, 5, -1, 15, 3]}
]},
{"Name": "Father-Tata", "Data": [
  {"Taxon": "Latin", "Segments": [26, 5, 26, 5]},
  {"Taxon": "Spanish", "Segments": [26, 5, 26, 5]},
  {"Taxon": "Italian", "Segments": [26, 5, 26, 5]},
  {"Taxon": "PortugueseBrazil", "Segments": [26, 5, 26, 5]},
  {"Taxon": "Portuguese", "Segments": [26, 5, 26, 5]},
  {"Taxon": "Friulian", "Segments": [26, 5, 26, 6]},
  {"Taxon": "Romanian", "Segments": [26, 5, 26, 24]}
]},
{"Name": "Animal-Primary", "Data": [
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  {"Taxon": "French", "Segments": [17, -1, -1, 2, 5, -1, 10, -1]},
  {"Taxon": "Spanish", "Segments": [5, 14, 3, 2, 5, 22, -1, 5]},
  {"Taxon": "Friulian", "Segments": [-1, 4, 6, 2, 41, 14, -1, -1]},
  {"Taxon": "Romanian", "Segments": [-1, 4, 24, 2, 5, -1, 10, 6]}
]},
{"Name": "Animal-Bestia", "Data": [
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  {"Taxon": "Italian", "Segments": [7, -1, 3, 36, 36, -1, 5]},
  {"Taxon": "PortugueseBrazil", "Segments": [7, -1, 3, -1, 36, -1, 9]},
  {"Taxon": "Portuguese", "Segments": [7, -1, 3, -1, 36, -1, 9]},
  {"Taxon": "Walloon", "Segments": [7, 3, 12, 33, -1, -1, -1]},
  {"Taxon": "Friulian", "Segments": [7, -1, 3, 33, -1, -1, -1]}
]},
{"Name": "Fish-Piskem", "Data": [
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  {"Taxon": "Spanish", "Segments": [34, 6, 44, -1, -1, -1]},
  {"Taxon": "Italian", "Segments": [34, 6, 36, 36, 6, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [34, 45, 36, -1, 3, -1]},
  {"Taxon": "Portuguese", "Segments": [34, 46, 36, -1, 31, -1]},
```

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```
{
  "Taxon": "Catalan",          "Segments": [34, 6, 36, -1, -1, -1]},
  "Taxon": "Friulian",        "Segments": [34, 12, 33, -1, -1, -1]},
  "Taxon": "Romanian",        "Segments": [34, 6, 36, 26, 6, -1]}
}],
{
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      "Taxon": "Walloon",        "Segments": [34, -1, 12, 49, 48]}
    ]
},
{
  "Name": "Bird-Avem", "Data": [
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      "Taxon": "Spanish",        "Segments": [5, 7, 6, -1]},
      "Taxon": "PortugueseBrazil", "Segments": [5, 50, 3, -1]},
      "Taxon": "Portuguese",      "Segments": [5, 50, 31, -1]},
      "Taxon": "Catalan",        "Segments": [5, 47, -1, -1]}
    ]
},
{
  "Name": "Bird-Aucellum", "Data": [
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      "Taxon": "French",          "Segments": [47, 5, 35, -1, 17, -1, -1, -1, -1]},
      "Taxon": "Italian",          "Segments": [-1, 13, 26, 30, 12, 14, 14, 17, -1]},
      "Taxon": "Catalan",          "Segments": [-1, 13, 33, -1, 6, -1, 18, -1, -1]},
      "Taxon": "Walloon",          "Segments": [-1, 13, 49, -1, 12, -1, -1, -1, -1]},
      "Taxon": "Friulian",          "Segments": [-1, 13, 30, 10, 12, -1, 14, -1, -1]}
    ]
},
{
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      "Taxon": "Italian",          "Segments": [34, 5, 33, 33, 6, 15, 17, -1]},
      "Taxon": "PortugueseBrazil", "Segments": [34, 5, -1, 33, 9, 8, 13, -1]},
      "Taxon": "Portuguese",      "Segments": [34, 5, -1, 33, 9, 8, 13, -1]},
      "Taxon": "Friulian",          "Segments": [34, 5, -1, 33, 5, 15, -1, -1]},
      "Taxon": "Romanian",          "Segments": [34, 5, -1, 33, 24, 8, 6, -1]}
    ]
},
{
  "Name": "Dog-Primary", "Data": [
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      "Taxon": "Latin",          "Segments": [39, -1, 5, 4, 6, 2]},
      "Taxon": "French",          "Segments": [36, 10, 52, -1, -1, -1]},
      "Taxon": "Spanish",          "Segments": [39, -1, 5, 4, -1, -1]},
      "Taxon": "Italian",          "Segments": [39, -1, 5, 4, 6, -1]},
      "Taxon": "PortugueseBrazil", "Segments": [39, -1, 53, -1, -1, -1]},
      "Taxon": "Portuguese",      "Segments": [39, -1, 53, -1, -1, -1]},
      "Taxon": "Catalan",          "Segments": [39, -1, 5, -1, -1, -1]},
      "Taxon": "Walloon",          "Segments": [30, -1, 52, -1, -1, -1]},
      "Taxon": "Friulian",          "Segments": [54, -1, 5, 4, -1, -1]},
      "Taxon": "Romanian",          "Segments": [39, -1, 55, 4, 6, -1]}
    ]
},
{
  "Name": "Louse-Primary", "Data": [
    {
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      "Taxon": "French",          "Segments": [34, -1, 13, -1, -1, -1, -1, -1, -1, -1]},
      "Taxon": "Spanish",          "Segments": [34, 10, 17, -1, -1, -1, -1, 16, -1, 17, -1]},
      "Taxon": "Italian",          "Segments": [34, -1, 3, 21, 23, 39, 39, 10, 17, -1]},
      "Taxon": "PortugueseBrazil", "Segments": [34, -1, 3, -1, 17, -1, 18, 13, -1, -1]},
      "Taxon": "Portuguese",      "Segments": [34, -1, 3, -1, 17, -1, 18, 13, -1, -1]},
      "Taxon": "Catalan",          "Segments": [34, -1, 17, -1, -1, -1, 18, -1, -1, -1]},
      "Taxon": "Walloon",          "Segments": [34, 10, 13, -1, -1, -1, -1, -1, -1, -1]},
      "Taxon": "Friulian",          "Segments": [34, -1, 6, 21, 38, -1, 14, 3, -1, -1]},
      "Taxon": "Romanian",          "Segments": [34, -1, 24, 21, 13, -1, 39, 10, 6, -1]}
    ]
},
{
  "Name": "Snake-Primary", "Data": [
```

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```
{
  "Taxon": "Latin",
  "Segments": [33, -1, 6, 15, 34, -1, 6, 4, 26, 6, 2]},
  "Taxon": "French",
  "Segments": [33, -1, 6, 19, 34, -1, 27, -1, -1, -1, -1]},
  "Taxon": "Spanish",
  "Segments": [33, -1, 6, 8, 34, 10, 6, 4, 26, 6, -1]},
  "Taxon": "Italian",
  "Segments": [33, -1, 6, 15, 34, -1, 6, 4, 26, 6, -1]},
  "Taxon": "PortugueseBrazil",
  "Segments": [33, -1, 6, 19, 34, -1, 56, -1, 30, 3, -1]},
  "Taxon": "Portuguese",
  "Segments": [33, -1, 31, 8, 34, -1, 56, -1, 26, 31, -1]},
  "Taxon": "Catalan",
  "Segments": [33, -1, 24, 15, 34, -1, 6, 4, -1, -1, -1]},
  "Taxon": "Walloon",
  "Segments": [33, 10, 12, 15, 34, -1, 56, -1, -1, -1, -1]},
  "Taxon": "Friulian",
  "Segments": [33, -1, 5, 15, 34, -1, 3, 4, 26, -1, -1]},
  "Taxon": "Romanian",
  "Segments": [36, -1, 5, 8, 34, -1, 6, -1, -1, -1, -1]}
}],
{
  "Name": "Worm-Primary", "Data": [
    {
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      "Segments": [47, -1, 6, 15, 2, 6, 2]},
      "Taxon": "French",
      "Segments": [50, -1, 6, 19, -1, -1, -1]},
      "Taxon": "Spanish",
      "Segments": [7, -1, 6, 8, 2, 6, -1]},
      "Taxon": "Italian",
      "Segments": [50, -1, 6, 15, 2, 6, -1]},
      "Taxon": "PortugueseBrazil",
      "Segments": [50, -1, 6, 19, 2, 3, -1]},
      "Taxon": "Portuguese",
      "Segments": [50, -1, 6, 8, 2, 31, -1]},
      "Taxon": "Catalan",
      "Segments": [50, -1, 12, 8, 2, -1, -1]},
      "Taxon": "Walloon",
      "Segments": [50, 10, 6, 15, -1, -1, -1]},
      "Taxon": "Friulian",
      "Segments": [50, 10, 41, 15, -1, -1, -1]},
      "Taxon": "Romanian",
      "Segments": [50, 10, 6, 15, 2, 6, -1]}
  ]
},
{
  "Name": "Tree-Primary", "Data": [
    {
      "Taxon": "Latin",
      "Segments": [5, 15, 7, 17, 15, 6, 2]},
      "Taxon": "French",
      "Segments": [5, 19, 7, -1, 19, -1, -1]},
      "Taxon": "Spanish",
      "Segments": [5, 8, 57, 17, 14, -1, -1]},
      "Taxon": "Italian",
      "Segments": [5, 14, 7, 6, 15, 17, -1]},
      "Taxon": "PortugueseBrazil",
      "Segments": [5, 19, 50, 17, 8, 3, -1]},
      "Taxon": "Portuguese",
      "Segments": [5, 8, 50, 13, 8, 31, -1]},
      "Taxon": "Catalan",
      "Segments": [5, -1, 7, -1, 8, 24, -1]},
      "Taxon": "Walloon",
      "Segments": [23, -1, 34, -1, -1, -1, -1]},
      "Taxon": "Friulian",
      "Segments": [5, 15, 7, 13, 14, -1, -1]},
      "Taxon": "Romanian",
      "Segments": [5, 15, 7, 17, 15, 6, -1]}
  ]
},
{
  "Name": "Forest-Primary", "Data": [
    {
      "Taxon": "Latin",
      "Segments": [33, 3, 14, 47, 5]},
      "Taxon": "Spanish",
      "Segments": [33, 6, 14, 7, 5]},
      "Taxon": "Italian",
      "Segments": [33, 6, 14, 50, 5]},
      "Taxon": "PortugueseBrazil",
      "Segments": [33, 12, 47, 50, 5]},
      "Taxon": "Portuguese",
      "Segments": [33, 12, 58, 50, 9]},
      "Taxon": "Catalan",
      "Segments": [33, 6, 14, 7, 5]},
      "Taxon": "Friulian",
      "Segments": [33, 12, 14, 50, 6]}
  ]
},
{
  "Name": "Stick-Primary", "Data": [
    {
      "Taxon": "Latin",
      "Segments": [34, 41, 14, 13, 33]},
      "Taxon": "French",
      "Segments": [34, 5, 14, -1, -1]},
      "Taxon": "Spanish",
      "Segments": [34, 5, 14, 17, -1]},
      "Taxon": "Italian",
      "Segments": [34, 5, 14, 17, -1]},
      "Taxon": "PortugueseBrazil",
      "Segments": [34, 5, 47, -1, -1]},
      "Taxon": "Portuguese",
      "Segments": [34, 5, 47, -1, -1]},
      "Taxon": "Catalan",
      "Segments": [34, 5, 14, -1, -1]},
      "Taxon": "Walloon",
      "Segments": [34, 59, -1, -1, -1]},
      "Taxon": "Friulian",
      "Segments": [34, 41, 14, -1, -1]},
      "Taxon": "Romanian",
      "Segments": [34, 5, 8, -1, -1]}
  ]
},
{
  "Name": "Fruit-Primary", "Data": [
```

## Appendix 1 - Tongue Twister Configuration

---

```
{
  "Taxon": "Latin",          "Segments": [0, 15, 60, -1, 39, 26, 13, 33]},
  "Taxon": "French",         "Segments": [0, 19, 61, 3, -1, -1, -1, -1]},
  "Taxon": "Spanish",        "Segments": [0, 8, 13, -1, -1, 26, 17, -1]},
  "Taxon": "Italian",        "Segments": [0, 15, 13, -1, 26, 26, 17, -1]},
  "Taxon": "PortugueseBrazil", "Segments": [0, 8, 13, -1, -1, 26, 9, -1]},
  "Taxon": "Portuguese",     "Segments": [0, 8, 13, -1, -1, 26, 9, -1]},
  "Taxon": "Catalan",        "Segments": [0, 8, 13, 10, -1, 26, -1, -1]},
  "Taxon": "Walloon",        "Segments": [0, 15, 62, -1, -1, 26, -1, -1]},
  "Taxon": "Friulian",       "Segments": [0, 15, 13, -1, -1, 26, -1, -1]},
  "Taxon": "Romanian",       "Segments": [0, 15, 13, -1, 39, 26, -1, -1]}
}],
{
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    {
      "Taxon": "Latin",          "Segments": [33, 1, 2, 6, 4]},
      "Taxon": "Italian",       "Segments": [33, 6, 2, 6, -1]}
  ],
  "Name": "Seed-Sementis", "Data": [
    {
      "Taxon": "Latin",          "Segments": [33, 6, 2, -1, 6, 4, 26, 3, 33]},
      "Taxon": "French",         "Segments": [33, 24, 2, -1, 27, -1, -1, -1, 33]},
      "Taxon": "Spanish",        "Segments": [33, 3, 2, 10, 6, 4, 26, 6, -1]},
      "Taxon": "Italian",        "Segments": [33, 6, 2, -1, 6, 4, 26, 6, -1]},
      "Taxon": "PortugueseBrazil", "Segments": [33, 6, 2, -1, 56, -1, 30, 3, -1]},
      "Taxon": "Portuguese",     "Segments": [33, 31, 2, -1, 56, -1, 26, 31, -1]},
      "Taxon": "Catalan",        "Segments": [33, 24, 2, -1, 6, 4, -1, -1, -1]},
      "Taxon": "Walloon",        "Segments": [33, 3, 2, -1, 56, -1, 33, -1, -1]},
      "Taxon": "Friulian",       "Segments": [33, 6, 2, -1, 12, 4, 30, 12, -1]},
      "Taxon": "Romanian",       "Segments": [33, 24, 2, -1, 31, 4, 30, 24, -1]}
  ],
  "Name": "Seed-Granum", "Data": [
    {
      "Taxon": "Latin",          "Segments": [63, 15, 41, 4, 13, 2]},
      "Taxon": "French",         "Segments": [63, 19, 12, 4, -1, -1]},
      "Taxon": "Spanish",        "Segments": [63, 8, 5, 4, 17, -1]},
      "Taxon": "Italian",        "Segments": [63, 15, 5, 4, 17, -1]},
      "Taxon": "PortugueseBrazil", "Segments": [63, 8, 53, -1, -1, -1]},
      "Taxon": "Portuguese",     "Segments": [63, 8, 53, -1, -1, -1]},
      "Taxon": "Catalan",        "Segments": [63, 8, 5, -1, -1, -1]},
      "Taxon": "Walloon",        "Segments": [63, 15, 3, 4, -1, -1]},
      "Taxon": "Friulian",       "Segments": [63, 15, 5, 4, -1, -1]},
      "Taxon": "Romanian",       "Segments": [63, 15, 64, -1, -1, -1]}
  ],
  "Name": "Leaf-Primary", "Data": [
    {
      "Taxon": "Latin",          "Segments": [0, -1, 17, 14, 3, 5]},
      "Taxon": "French",         "Segments": [0, -1, 11, 10, -1, -1]},
      "Taxon": "Spanish",        "Segments": [-1, -1, 17, 16, -1, 5]},
      "Taxon": "Italian",        "Segments": [0, -1, 23, 18, 18, 5]},
      "Taxon": "PortugueseBrazil", "Segments": [0, -1, 17, 18, -1, 9]},
      "Taxon": "Portuguese",     "Segments": [0, -1, 17, 18, -1, 9]},
      "Taxon": "Catalan",        "Segments": [0, -1, 13, 18, -1, 24]},
      "Taxon": "Walloon",        "Segments": [0, -1, 65, -1, -1, -1]},
      "Taxon": "Friulian",       "Segments": [0, 47, 6, -1, -1, 6]},
      "Taxon": "Romanian",       "Segments": [0, -1, 25, -1, 10, 6]}
  ],
  "Name": "Leaf-Frondea", "Data": [
    {
      "Taxon": "Latin",          "Segments": [0, 15, 17, 4, 21, 6, 5]},
      "Taxon": "Italian",        "Segments": [0, 15, 17, 4, 66, -1, 5]},
      "Taxon": "PortugueseBrazil", "Segments": [0, 8, 48, -1, 33, -1, 9]},
      "Taxon": "Portuguese",     "Segments": [0, 8, 48, -1, 33, -1, 9]},
      "Taxon": "Romanian",       "Segments": [0, 8, 13, 4, 35, -1, 24]}
  ]
}
```



## Appendix 1 - Tongue Twister Configuration

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```
}},
{"Name": "Root-Primary", "Data": [
  {"Taxon": "Latin", "Segments": [-1, 15, 41, 21, -1, 20, 39, 6, 2]},
  {"Taxon": "Spanish", "Segments": [-1, 15, 5, -1, -1, 3, 44, -1, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [-1, 19, 5, -1, -1, 3, 33, -1, -1]},
  {"Taxon": "Portuguese", "Segments": [-1, 19, 9, -1, -1, 3, 36, -1, -1]},
  {"Taxon": "Catalan", "Segments": [24, 15, 12, 14, -1, -1, -1, -1, -1]},
  {"Taxon": "Friulian", "Segments": [-1, 15, 5, 21, 15, 20, 33, -1, -1]}
]},
{"Name": "Root-Radicina", "Data": [
  {"Taxon": "Latin", "Segments": [15, 41, 21, 20, 39, 20, 4, 5]},
  {"Taxon": "French", "Segments": [19, 5, -1, -1, 33, 3, 4, -1]},
  {"Taxon": "Walloon", "Segments": [15, 12, -1, -1, 33, 12, 4, -1]},
  {"Taxon": "Romanian", "Segments": [15, 24, 21, 24, 30, 3, 4, 24]}
]},
{"Name": "BarkOfATree-Primary", "Data": [
  {"Taxon": "Latin", "Segments": [39, 17, 15, 26, 3, 39, 6, 2]},
  {"Taxon": "PortugueseBrazil", "Segments": [39, 23, 19, 30, 3, 33, 3, -1]},
  {"Taxon": "Portuguese", "Segments": [39, 23, 8, 26, 3, 33, 31, -1]}
]},
{"Name": "BarkOfATree-Corticea", "Data": [
  {"Taxon": "Latin", "Segments": [39, 17, 15, 26, 3, -1, 39, 6, 5]},
  {"Taxon": "Spanish", "Segments": [39, 17, 8, 26, 6, -1, 44, -1, 5]},
  {"Taxon": "Italian", "Segments": [39, 17, 15, 26, 6, 26, 30, 5, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [39, 17, 19, 30, 3, -1, 33, 9, -1]},
  {"Taxon": "Portuguese", "Segments": [39, 13, 8, 26, 3, -1, 33, 9, -1]}
]},
{"Name": "BarkOfATree-Skorteia", "Data": [
  {"Taxon": "Latin", "Segments": [-1, 33, 39, -1, 17, 15, 26, 6, 5]},
  {"Taxon": "French", "Segments": [6, -1, 39, -1, 17, 19, 33, -1, -1]},
  {"Taxon": "Italian", "Segments": [-1, 33, 39, -1, 23, 15, 40, -1, 5]},
  {"Taxon": "Catalan", "Segments": [24, 33, 39, -1, 23, 15, 33, -1, 24]},
  {"Taxon": "Walloon", "Segments": [-1, 49, -1, 47, 12, -1, 33, -1, -1]},
  {"Taxon": "Friulian", "Segments": [-1, 33, 39, 47, 5, 15, 30, -1, 6]},
  {"Taxon": "Romanian", "Segments": [-1, 33, 39, -1, 25, 8, 40, -1, 24]}
]},
{"Name": "Flower-Primary", "Data": [
  {"Taxon": "Latin", "Segments": [0, 14, 38, 15, 6, 2]},
  {"Taxon": "French", "Segments": [0, 14, 11, 19, -1, -1]},
  {"Taxon": "Spanish", "Segments": [0, 14, 17, 8, -1, -1]},
  {"Taxon": "Italian", "Segments": [0, 10, 17, 15, 6, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [0, 14, 17, 19, -1, -1]},
  {"Taxon": "Portuguese", "Segments": [0, 14, 17, 8, -1, -1]},
  {"Taxon": "Catalan", "Segments": [0, 14, 23, -1, -1, -1]},
  {"Taxon": "Walloon", "Segments": [0, 14, 11, 15, -1, -1]},
  {"Taxon": "Friulian", "Segments": [0, 14, 38, 15, -1, -1]},
  {"Taxon": "Romanian", "Segments": [0, 14, 25, 8, 6, -1]}
]},
{"Name": "Grass-Primary", "Data": [
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  {"Taxon": "French", "Segments": [-1, -1, 12, 19, 7, -1]},
  {"Taxon": "Spanish", "Segments": [67, -1, 6, 8, 7, 5]},
  {"Taxon": "Italian", "Segments": [-1, -1, 12, 15, 7, 5]},
  {"Taxon": "PortugueseBrazil", "Segments": [-1, -1, 6, 19, 50, 9]},
  {"Taxon": "Portuguese", "Segments": [-1, -1, 12, 8, 50, 9]},
  {"Taxon": "Catalan", "Segments": [-1, -1, 6, 15, 7, 24]},
  {"Taxon": "Walloon", "Segments": [10, -1, 12, -1, 34, -1]},
```

## Appendix 1 - Tongue Twister Configuration

---

```
{
  "Taxon": "Friulian",      "Segments": [10, -1, 6, 15, 7, 6]},
  "Taxon": "Romanian",     "Segments": [10, -1, 5, 8, 7, 24]}
}],
{
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    {"Taxon": "French",     "Segments": [63, 19, 5, 2, 12, 4]},
    {"Taxon": "Spanish",    "Segments": [63, 8, 5, 2, 5, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [63, 8, 29, 2, 9, -1]},
    {"Taxon": "Portuguese", "Segments": [63, 8, 9, 2, 9, -1]},
    {"Taxon": "Catalan",    "Segments": [63, 8, 5, 2, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [63, 15, 5, 2, 6, -1]}
  ]
},
{
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    {"Taxon": "Latin",      "Segments": [0, 60, 4, -1, 6, 2]},
    {"Taxon": "Italian",    "Segments": [0, 13, 4, -1, 6, -1]},
    {"Taxon": "Romanian",   "Segments": [0, 13, 4, 10, 6, -1]}
  ]
},
{
  "Name": "Rope-Restis", "Data": [
    {"Taxon": "Latin",      "Segments": [15, 6, 33, 26, 6, 2]},
    {"Taxon": "Spanish",    "Segments": [8, -1, 3, 33, 26, 5]},
    {"Taxon": "Italian",    "Segments": [15, -1, 12, 33, 26, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [19, -1, 12, 36, 30, 3]},
    {"Taxon": "Portuguese", "Segments": [19, -1, 6, 36, 26, 31]},
    {"Taxon": "Friulian",   "Segments": [15, 10, 6, 33, 26, 6]}
  ]
},
{
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    {"Taxon": "Italian",    "Segments": [39, -1, 17, 26, 6, 4, 4, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [39, -1, 17, 68, 3, -1, -1, 9]},
    {"Taxon": "Portuguese", "Segments": [39, -1, 17, 21, 3, -1, -1, 9]},
    {"Taxon": "Catalan",    "Segments": [39, -1, 17, -1, -1, 4, 4, 24]},
    {"Taxon": "Walloon",    "Segments": [39, -1, 69, 3, -1, 4, -1, -1]}
  ]
},
{
  "Name": "Skin-Pellis", "Data": [
    {"Taxon": "Latin",      "Segments": [34, -1, 6, 14, 14, 6, 2]},
    {"Taxon": "French",     "Segments": [34, -1, 17, -1, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [34, 10, 6, -1, 14, -1, -1]},
    {"Taxon": "Italian",    "Segments": [34, -1, 6, 14, 14, 6, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [34, -1, 12, -1, 14, 3, -1]},
    {"Taxon": "Portuguese", "Segments": [34, -1, 6, -1, 14, 31, -1]},
    {"Taxon": "Catalan",    "Segments": [34, -1, 6, -1, 18, -1, -1]},
    {"Taxon": "Walloon",    "Segments": [34, 12, -1, -1, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [34, 10, 12, -1, 14, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [34, 10, 6, -1, 14, 6, -1]}
  ]
},
{
  "Name": "Meat-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [39, 5, 15, 4, 6, 2]},
    {"Taxon": "French",     "Segments": [36, 12, 19, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [39, 5, 8, 4, 6, -1]},
    {"Taxon": "Italian",    "Segments": [39, 5, 15, 4, 6, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [39, 5, 19, 4, 3, -1]},
    {"Taxon": "Portuguese", "Segments": [39, 5, 8, 4, 31, -1]},
    {"Taxon": "Catalan",    "Segments": [39, 5, 15, 4, -1, -1]},
    {"Taxon": "Walloon",    "Segments": [30, 59, 15, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [54, 41, 15, -1, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [39, 5, 8, 4, 6, -1]}
  ]
},
]
```



## Appendix 1 - Tongue Twister Configuration

---

```
{
  "Name": "Blood-Primary", "Data": [
    {
      "Taxon": "Latin", "Segments": [33, 5, 4, 70, -1, 3, 4, 6, 2]},
    {
      "Taxon": "French", "Segments": [33, 27, -1, -1, -1, -1, -1, -1, -1]},
    {
      "Taxon": "Spanish", "Segments": [33, 5, 71, 63, -1, -1, 8, 6, -1]},
    {
      "Taxon": "Italian", "Segments": [33, 5, 4, 63, 47, 6, -1, -1, -1]},
    {
      "Taxon": "PortugueseBrazil", "Segments": [33, 29, -1, 63, -1, 3, -1, -1, -1]},
    {
      "Taxon": "Portuguese", "Segments": [33, 29, -1, 63, -1, 31, -1, -1, -1]},
    {
      "Taxon": "Catalan", "Segments": [33, 5, 71, -1, -1, -1, -1, -1, -1]},
    {
      "Taxon": "Walloon", "Segments": [33, 72, -1, 63, -1, -1, -1, -1, -1]},
    {
      "Taxon": "Friulian", "Segments": [33, 5, 4, 39, -1, -1, -1, -1, -1]},
    {
      "Taxon": "Romanian", "Segments": [33, 31, 4, 68, -1, 6, -1, -1, -1]}
  ],
  "Name": "Bone-Primary", "Data": [
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      "Taxon": "Latin", "Segments": [-1, 17, 33, 33, 13, 2]},
    {
      "Taxon": "French", "Segments": [-1, 23, -1, 33, -1, -1]},
    {
      "Taxon": "Spanish", "Segments": [47, 6, -1, 33, 17, -1]},
    {
      "Taxon": "Italian", "Segments": [-1, 23, 33, 33, 17, -1]},
    {
      "Taxon": "PortugueseBrazil", "Segments": [-1, 17, -1, 33, 13, -1]},
    {
      "Taxon": "Portuguese", "Segments": [-1, 17, -1, 33, 13, -1]},
    {
      "Taxon": "Catalan", "Segments": [-1, 23, -1, 33, -1, -1]},
    {
      "Taxon": "Walloon", "Segments": [-1, 23, -1, 49, 12, -1]},
    {
      "Taxon": "Friulian", "Segments": [47, 12, -1, 33, -1, -1]},
    {
      "Taxon": "Romanian", "Segments": [-1, 17, -1, 33, -1, -1]}
  ],
  "Name": "FatNoun-Primary", "Data": [
    {
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    {
      "Taxon": "Italian", "Segments": [5, 21, 3, 34, 6, -1]}
  ],
  "Name": "FatNoun-Crassia", "Data": [
    {
      "Taxon": "French", "Segments": [63, 19, 12, 33, -1]},
    {
      "Taxon": "Spanish", "Segments": [63, 8, 5, 33, 5]},
    {
      "Taxon": "PortugueseBrazil", "Segments": [63, 8, 5, 36, 9]},
    {
      "Taxon": "Portuguese", "Segments": [63, 8, 5, 36, 9]},
    {
      "Taxon": "Catalan", "Segments": [63, 8, 6, 36, -1]},
    {
      "Taxon": "Walloon", "Segments": [39, 15, 23, 49, -1]},
    {
      "Taxon": "Friulian", "Segments": [63, 15, 5, 33, -1]}
  ],
  "Name": "Egg-Primary", "Data": [
    {
      "Taxon": "Latin", "Segments": [-1, 38, 47, 13, 2]},
    {
      "Taxon": "French", "Segments": [-1, 11, 0, -1, -1]},
    {
      "Taxon": "Spanish", "Segments": [47, 6, 7, 17, -1]},
    {
      "Taxon": "Italian", "Segments": [47, 23, 50, 17, -1]},
    {
      "Taxon": "PortugueseBrazil", "Segments": [-1, 17, 50, 13, -1]},
    {
      "Taxon": "Portuguese", "Segments": [-1, 17, 50, 13, -1]},
    {
      "Taxon": "Catalan", "Segments": [-1, 23, 47, -1, -1]},
    {
      "Taxon": "Walloon", "Segments": [-1, 13, -1, -1, -1]},
    {
      "Taxon": "Friulian", "Segments": [-1, 60, 0, -1, -1]},
    {
      "Taxon": "Romanian", "Segments": [-1, 17, 47, -1, -1]}
  ],
  "Name": "Horn-Primary", "Data": [
    {
      "Taxon": "Latin", "Segments": [39, -1, 17, 15, 4, 60]},
    {
      "Taxon": "French", "Segments": [39, -1, 23, 19, 4, -1]},
    {
      "Taxon": "Spanish", "Segments": [39, 47, 6, 8, 4, 17]},
    {
      "Taxon": "Italian", "Segments": [39, -1, 23, 15, 4, 17]},
    {
      "Taxon": "PortugueseBrazil", "Segments": [39, -1, 17, 19, 4, 13]},
    {
      "Taxon": "Portuguese", "Segments": [39, -1, 17, 8, 4, 13]},
    {
      "Taxon": "Catalan", "Segments": [39, -1, 23, 15, 4, -1]},
  ]
}
```

## Appendix 1 - Tongue Twister Configuration

---

```
{
  "Taxon": "Walloon",      "Segments": [39, 47, 12, -1, 4, -1]},
  "Taxon": "Friulian",    "Segments": [39, 47, 5, 15, -1, -1]},
  "Taxon": "Romanian",    "Segments": [39, -1, 17, 15, 4, -1]}
}],
{
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    {"Taxon": "French",     "Segments": [39, 73, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [39, 17, 14, 5]},
    {"Taxon": "Italian",    "Segments": [39, 17, 21, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [39, 51, 21, 9]},
    {"Taxon": "Portuguese", "Segments": [39, 51, 21, 9]},
    {"Taxon": "Catalan",    "Segments": [39, 13, -1, 5]},
    {"Taxon": "Walloon",    "Segments": [39, 23, 47, -1]},
    {"Taxon": "Friulian",   "Segments": [39, 23, 21, 12]},
    {"Taxon": "Romanian",   "Segments": [54, 25, 21, 24]}
  ]
},
{
  "Name": "Feather-Primary", "Data": [
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    {"Taxon": "French",     "Segments": [34, 14, 62, 2, -1]},
    {"Taxon": "Spanish",    "Segments": [34, 14, 13, 2, 5]},
    {"Taxon": "Italian",    "Segments": [34, 10, 13, 2, 5]},
    {"Taxon": "Catalan",    "Segments": [34, 14, 17, 2, 24]},
    {"Taxon": "Walloon",    "Segments": [34, 14, 23, 2, -1]},
    {"Taxon": "Friulian",   "Segments": [34, 14, 13, 2, 12]}
  ]
},
{
  "Name": "Feather-Penna", "Data": [
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    {"Taxon": "French",     "Segments": [34, 12, -1, 4, -1]},
    {"Taxon": "Spanish",    "Segments": [34, 6, -1, 22, 5]},
    {"Taxon": "Italian",    "Segments": [34, 6, 4, 4, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [34, 6, -1, 4, 9]},
    {"Taxon": "Portuguese", "Segments": [34, 6, -1, 4, 9]},
    {"Taxon": "Catalan",    "Segments": [34, 12, -1, 22, 24]},
    {"Taxon": "Walloon",    "Segments": [34, 12, -1, 4, -1]},
    {"Taxon": "Friulian",   "Segments": [34, 12, -1, 4, 6]},
    {"Taxon": "Romanian",   "Segments": [34, 5, -1, 4, 24]}
  ]
},
{
  "Name": "Hair-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [34, -1, 3, 14, 13, 33]},
    {"Taxon": "French",     "Segments": [34, 47, 5, 14, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [34, -1, 6, 14, 17, -1]},
    {"Taxon": "Italian",    "Segments": [34, -1, 6, 14, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [34, -1, 6, 14, 13, -1]},
    {"Taxon": "Portuguese", "Segments": [34, -1, 31, 14, 13, -1]},
    {"Taxon": "Catalan",    "Segments": [34, -1, 12, 14, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [34, -1, 1, 14, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [34, -1, 24, 8, -1, -1]}
  ]
},
{
  "Name": "Hair-Capillus", "Data": [
    {"Taxon": "Latin",      "Segments": [39, 5, 34, 3, 14, 14, 13, 33]},
    {"Taxon": "French",     "Segments": [36, 24, 50, 73, -1, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [39, 5, 7, 6, -1, 67, 17, -1]},
    {"Taxon": "Italian",    "Segments": [39, 5, 34, 6, 14, 14, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [39, 5, 7, 6, -1, 14, 13, -1]},
    {"Taxon": "Portuguese", "Segments": [39, 9, 57, 6, -1, 14, 13, -1]},
    {"Taxon": "Catalan",    "Segments": [39, 24, 7, 12, -1, 18, -1, -1]},
    {"Taxon": "Walloon",    "Segments": [68, -1, 50, 12, -1, -1, -1, -1]}
  ]
}
```

## Appendix 1 - Tongue Twister Configuration

---

```

    {"Taxon": "Friulian",      "Segments": [54, 5, 50, 6, 14, -1, -1, -1]}
  ]},
  {"Name": "Head-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [39, 5, 34, 3, -1, 26, 3, 5]},
    {"Taxon": "French",     "Segments": [36, 24, 50, 12, -1, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [39, 5, 57, 6, -1, 44, -1, 5]},
    {"Taxon": "Italian",    "Segments": [39, 5, 50, 6, 26, 26, 33, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [39, 5, 7, 6, -1, 33, -1, 9]},
    {"Taxon": "Portuguese", "Segments": [39, 9, 57, 6, -1, 33, -1, 9]},
    {"Taxon": "Catalan",    "Segments": [39, 5, 34, -1, -1, -1, -1, -1]},
    {"Taxon": "Friulian",    "Segments": [54, 5, 50, 12, -1, 30, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [39, 5, 34, -1, -1, -1, -1, -1]}
  ]},
  {"Name": "Head-Testa", "Data": [
    {"Taxon": "Latin",      "Segments": [26, 6, 33, 26, 5]},
    {"Taxon": "French",     "Segments": [26, 12, -1, 26, -1]},
    {"Taxon": "Italian",    "Segments": [26, 12, 33, 26, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [26, 12, 33, 26, 9]},
    {"Taxon": "Portuguese", "Segments": [26, 12, 36, 26, 9]},
    {"Taxon": "Catalan",    "Segments": [26, 6, 33, 26, 24]},
    {"Taxon": "Walloon",    "Segments": [30, 12, 33, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [26, 12, 33, 26, 6]},
    {"Taxon": "Romanian",   "Segments": [40, 74, 33, 26, 24]}
  ]},
  {"Name": "Ear-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [38, 15, 3, -1, 39, 14, 5]},
    {"Taxon": "French",     "Segments": [17, 19, 45, -1, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [17, 8, 6, -1, 16, -1, 5]},
    {"Taxon": "Italian",    "Segments": [17, 15, 6, 39, 39, 10, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [17, 8, 6, -1, -1, 18, 9]},
    {"Taxon": "Portuguese", "Segments": [17, 8, 46, -1, -1, 18, 9]},
    {"Taxon": "Catalan",    "Segments": [13, 8, 12, -1, -1, 18, 24]},
    {"Taxon": "Walloon",    "Segments": [23, 75, 76, -1, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [17, 15, 1, -1, -1, 14, 6]},
    {"Taxon": "Romanian",   "Segments": [13, 15, 6, -1, 39, -1, 6]}
  ]},
  {"Name": "Eye-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [-1, 17, -1, 39, 13, 14, 13, 33]},
    {"Taxon": "French",     "Segments": [-1, 11, -1, 10, -1, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [-1, 17, -1, 16, -1, 17, -1, -1]},
    {"Taxon": "Italian",    "Segments": [-1, 23, 39, 39, -1, 10, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [-1, 17, -1, -1, -1, 18, 13, -1]},
    {"Taxon": "Portuguese", "Segments": [-1, 17, -1, -1, -1, 18, 13, -1]},
    {"Taxon": "Walloon",    "Segments": [-1, 13, -1, 10, -1, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [50, 17, -1, -1, 14, 3, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [-1, 17, -1, 77, -1, -1, -1, -1]}
  ]},
  {"Name": "Nose-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [4, 41, 33, 13, 33]},
    {"Taxon": "French",     "Segments": [4, 6, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [4, 5, 33, 17, -1]},
    {"Taxon": "Italian",    "Segments": [4, 41, 33, 17, -1]},
    {"Taxon": "Catalan",    "Segments": [4, 5, 33, -1, -1]},
    {"Taxon": "Walloon",    "Segments": [4, 6, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [4, 41, 33, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [4, 5, 33, -1, -1]}
  ]},
  ]},

```

## Appendix 1 - Tongue Twister Configuration

---

```
{
  "Name": "Nose-Nares", "Data": [
    {
      "Taxon": "Spanish",
      "Segments": [4, 5, 8, 3, 44, -1]
    },
    {
      "Taxon": "Italian",
      "Segments": [4, 5, 15, 3, 30, 6]
    },
    {
      "Taxon": "PortugueseBrazil",
      "Segments": [4, 5, 8, 3, 33, -1]
    },
    {
      "Taxon": "Portuguese",
      "Segments": [4, 9, 8, 3, 36, -1]
    },
    {
      "Taxon": "Catalan",
      "Segments": [4, 41, 15, 78, 33, -1]
    }
  ],
  "Name": "Mouth-Primary", "Data": [
    {
      "Taxon": "Latin",
      "Segments": [7, 13, 39, 39, 5]
    },
    {
      "Taxon": "French",
      "Segments": [7, 13, -1, 36, -1]
    },
    {
      "Taxon": "Spanish",
      "Segments": [7, 17, -1, 39, 5]
    },
    {
      "Taxon": "Italian",
      "Segments": [7, 17, 39, 39, 5]
    },
    {
      "Taxon": "PortugueseBrazil",
      "Segments": [7, 17, -1, 39, 9]
    },
    {
      "Taxon": "Portuguese",
      "Segments": [7, 17, -1, 39, 9]
    },
    {
      "Taxon": "Catalan",
      "Segments": [7, 17, -1, 39, 24]
    },
    {
      "Taxon": "Walloon",
      "Segments": [7, 23, -1, 39, -1]
    },
    {
      "Taxon": "Friulian",
      "Segments": [7, 23, -1, 54, 12]
    },
    {
      "Taxon": "Romanian",
      "Segments": [7, 13, -1, 39, 24]
    }
  ],
  "Name": "Mouth-Gula", "Data": [
    {
      "Taxon": "Latin",
      "Segments": [63, 13, 14, 5]
    },
    {
      "Taxon": "French",
      "Segments": [63, 11, 14, -1]
    },
    {
      "Taxon": "Spanish",
      "Segments": [63, 17, 14, 5]
    },
    {
      "Taxon": "Italian",
      "Segments": [63, 17, 14, 5]
    },
    {
      "Taxon": "Catalan",
      "Segments": [63, 17, 14, 24]
    },
    {
      "Taxon": "Walloon",
      "Segments": [63, 11, 10, -1]
    },
    {
      "Taxon": "Friulian",
      "Segments": [63, 23, 14, 6]
    },
    {
      "Taxon": "Romanian",
      "Segments": [63, 13, 8, 24]
    }
  ],
  "Name": "Tooth-Primary", "Data": [
    {
      "Taxon": "Latin",
      "Segments": [21, -1, 6, 4, 26, 6, 2]
    },
    {
      "Taxon": "French",
      "Segments": [21, -1, 27, -1, -1, -1, -1]
    },
    {
      "Taxon": "Spanish",
      "Segments": [21, 10, 6, 4, 26, 6, -1]
    },
    {
      "Taxon": "Italian",
      "Segments": [21, -1, 12, 4, 26, 6, -1]
    },
    {
      "Taxon": "PortugueseBrazil",
      "Segments": [21, -1, 56, -1, 30, 3, -1]
    },
    {
      "Taxon": "Portuguese",
      "Segments": [21, -1, 56, -1, 26, 31, -1]
    },
    {
      "Taxon": "Walloon",
      "Segments": [21, -1, 52, -1, -1, -1, -1]
    },
    {
      "Taxon": "Friulian",
      "Segments": [21, -1, 3, 4, 26, -1, -1]
    },
    {
      "Taxon": "Romanian",
      "Segments": [21, -1, 3, 4, 26, 6, -1]
    }
  ],
  "Name": "Fingernail-Primary", "Data": [
    {
      "Taxon": "Latin",
      "Segments": [13, 4, 63, -1, 13, 14, 5]
    },
    {
      "Taxon": "French",
      "Segments": [48, -1, 63, -1, -1, 14, -1]
    },
    {
      "Taxon": "Spanish",
      "Segments": [13, 22, -1, -1, -1, -1, 5]
    },
    {
      "Taxon": "Italian",
      "Segments": [13, 4, 63, 10, -1, -1, 5]
    },
    {
      "Taxon": "PortugueseBrazil",
      "Segments": [13, 22, -1, -1, -1, -1, 9]
    },
    {
      "Taxon": "Portuguese",
      "Segments": [13, 22, -1, -1, -1, -1, 9]
    },
    {
      "Taxon": "Walloon",
      "Segments": [72, -1, 63, -1, -1, -1, -1]
    },
    {
      "Taxon": "Friulian",
      "Segments": [23, 4, 63, -1, 13, 14, 6]
    },
    {
      "Taxon": "Romanian",
      "Segments": [13, 4, 63, 10, -1, -1, 6]
    }
  ],
  "Name": "Foot-Primary", "Data": [
    {
      "Taxon": "Latin",
      "Segments": [34, -1, 6, -1, 21, 6, 2]
    },
    {
      "Taxon": "French",
      "Segments": [34, 10, 6, -1, -1, -1, -1]
    },
    {
      "Taxon": "Spanish",
      "Segments": [34, 10, 6, -1, -1, -1, -1]
    },
    {
      "Taxon": "Italian",
      "Segments": [34, 10, 12, -1, 21, 6, -1]
    },
    {
      "Taxon": "PortugueseBrazil",
      "Segments": [34, -1, 12, -1, -1, -1, -1]
    }
  ]
}
```

## Appendix 1 - Tongue Twister Configuration

```

    {"Taxon": "Portuguese",      "Segments": [34, -1, 12, -1, -1, -1, -1]},
    {"Taxon": "Catalan",        "Segments": [34, -1, 12, 47, -1, -1, -1]},
    {"Taxon": "Walloon",        "Segments": [34, -1, 3, -1, -1, -1, -1]},
    {"Taxon": "Friulian",       "Segments": [34, -1, 20, -1, 26, -1, -1]},
    {"Taxon": "Romanian",       "Segments": [34, 3, 6, -1, 35, -1, -1]}
  ]},
  {"Name": "Leg-Gamba", "Data": [
    {"Taxon": "Latin",          "Segments": [63, 5, 2, 7, 5]},
    {"Taxon": "French",         "Segments": [79, 27, -1, 7, -1]},
    {"Taxon": "Spanish",        "Segments": [63, 5, 2, 7, 5]},
    {"Taxon": "Italian",        "Segments": [63, 5, 2, 7, 5]},
    {"Taxon": "Catalan",        "Segments": [39, 5, 2, 7, 24]},
    {"Taxon": "Walloon",        "Segments": [68, 27, -1, 34, -1]},
    {"Taxon": "Friulian",       "Segments": [80, 5, 2, 7, 6]},
    {"Taxon": "Romanian",       "Segments": [63, 5, 2, 7, 24]}
  ]},
  {"Name": "Leg-Perna", "Data": [
    {"Taxon": "Latin",          "Segments": [34, -1, 6, 15, 4, 5]},
    {"Taxon": "Spanish",        "Segments": [34, 10, 6, 8, 4, 5]},
    {"Taxon": "Italian",        "Segments": [34, -1, 12, 15, 4, 17]},
    {"Taxon": "PortugueseBrazil", "Segments": [34, -1, 12, 19, 4, 9]},
    {"Taxon": "Portuguese",     "Segments": [34, -1, 12, 8, 4, 9]},
    {"Taxon": "Catalan",        "Segments": [34, -1, 12, 15, 4, 24]}
  ]},
  {"Name": "Leg-Petiolus", "Data": [
    {"Taxon": "Latin",          "Segments": [34, 6, -1, 26, 3, 17, 14, 13, 33]},
    {"Taxon": "Spanish",        "Segments": [34, 6, -1, 44, 3, 17, 14, 17, -1]},
    {"Taxon": "Italian",        "Segments": [34, 3, 26, 30, -1, 23, 14, 17, -1]},
    {"Taxon": "Friulian",       "Segments": [34, 12, -1, 39, -1, 23, 14, -1, -1]},
    {"Taxon": "Romanian",       "Segments": [34, 3, -1, 30, 10, 17, 15, -1, -1]}
  ]},
  {"Name": "Knee-Geniculum", "Data": [
    {"Taxon": "Latin",          "Segments": [63, -1, 6, 4, 3, -1, 39, 13, 14, 13, 2]},
    {"Taxon": "French",         "Segments": [79, -1, 24, 4, 13, -1, -1, -1, -1, -1, -1]},
    {"Taxon": "Spanish",        "Segments": [-1, -1, 3, 4, 17, -1, 16, 17, -1, -1, -1]},
    {"Taxon": "Italian",        "Segments": [68, -1, 3, 4, 23, 39, 39, -1, 10, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [79, 13, 6, -1, -1, -1, -1, -1, 18, 13, -1]},
    {"Taxon": "Portuguese",     "Segments": [79, 47, 9, -1, -1, -1, -1, -1, 18, 13, -1]},
    {"Taxon": "Catalan",        "Segments": [79, -1, 24, 4, 17, -1, -1, -1, 18, -1, -1]},
    {"Taxon": "Walloon",        "Segments": [22, -1, -1, 22, 23, -1, -1, -1, -1, -1, -1]},
    {"Taxon": "Friulian",       "Segments": [68, -1, 6, 4, 17, -1, -1, -1, 14, 3, -1]},
    {"Taxon": "Romanian",       "Segments": [68, -1, 6, 4, 13, 4, 77, -1, -1, -1, -1]}
  ]},
  {"Name": "Hand-Primary", "Data": [
    {"Taxon": "Latin",          "Segments": [2, 5, 4, 13, 2]},
    {"Taxon": "French",         "Segments": [2, 56, -1, -1, -1]},
    {"Taxon": "Spanish",        "Segments": [2, 5, 4, 17, -1]},
    {"Taxon": "Italian",        "Segments": [2, 41, 4, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [2, 53, -1, -1, -1]},
    {"Taxon": "Portuguese",     "Segments": [2, 53, -1, -1, -1]},
    {"Taxon": "Walloon",        "Segments": [2, 52, -1, -1, -1]},
    {"Taxon": "Friulian",       "Segments": [2, 5, 4, -1, -1]},
    {"Taxon": "Romanian",       "Segments": [2, 31, 4, 24, -1]}
  ]},
  {"Name": "Wing-Primary", "Data": [
    {"Taxon": "Latin",          "Segments": [41, 14, 5]},
    {"Taxon": "French",         "Segments": [6, 14, -1]}
  ]}

```

## Appendix 1 - Tongue Twister Configuration

---

```
{
  "Taxon": "Spanish",      "Segments": [5, 14, 5]},
  "Taxon": "Italian",     "Segments": [5, 14, 5]},
  "Taxon": "PortugueseBrazil", "Segments": [5, -1, -1]},
  "Taxon": "Portuguese",  "Segments": [5, -1, -1]},
  "Taxon": "Catalan",     "Segments": [5, 14, 24]},
  "Taxon": "Walloon",     "Segments": [6, 14, -1]},
  "Taxon": "Friulian",    "Segments": [5, 14, 6]}
}],
{
  "Name": "Belly-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [47, -1, 6, 4, 26, 15, 6, 2]},
    {"Taxon": "French",     "Segments": [50, -1, 27, -1, 26, 19, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [7, 10, 6, 4, 26, 8, 6, -1]},
    {"Taxon": "Catalan",    "Segments": [7, -1, 6, 4, 26, 8, 24, -1]},
    {"Taxon": "Walloon",    "Segments": [50, -1, 52, -1, 26, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [50, -1, 3, 4, 26, 15, 3, -1]},
    {"Taxon": "Romanian",   "Segments": [50, -1, 3, 4, 26, 15, 6, -1]}
  ]
},
{
  "Name": "Belly-Pantex", "Data": [
    {"Taxon": "Latin",      "Segments": [34, 5, 4, 26, 3, 39, 6, 2]},
    {"Taxon": "French",     "Segments": [34, 27, -1, 33, -1, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [34, 5, 4, 44, -1, -1, 5, -1]},
    {"Taxon": "Italian",    "Segments": [34, 5, 4, 30, -1, -1, 5, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [34, 29, -1, 33, -1, -1, 9, -1]},
    {"Taxon": "Portuguese",  "Segments": [34, 29, -1, 33, -1, -1, 9, -1]},
    {"Taxon": "Catalan",    "Segments": [34, 5, 22, 36, -1, -1, 24, -1]},
    {"Taxon": "Walloon",    "Segments": [34, 27, -1, 33, -1, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [34, 5, 4, 40, -1, -1, 6, -1]},
    {"Taxon": "Romanian",   "Segments": [34, 31, 4, 26, 6, 30, 6, -1]}
  ]
},
{
  "Name": "Guts-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [3, 4, 26, 6, 15, 41, 4, 6, 5]},
    {"Taxon": "French",     "Segments": [27, -1, 26, -1, 19, 5, -1, 10, -1]},
    {"Taxon": "Spanish",    "Segments": [6, 4, 26, -1, 8, 5, 22, -1, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [28, -1, 26, -1, 8, 29, 22, -1, 9]},
    {"Taxon": "Portuguese",  "Segments": [56, -1, 26, -1, 8, 9, 22, -1, 9]},
    {"Taxon": "Catalan",    "Segments": [24, 4, 26, -1, 8, 5, 22, -1, 24]}
  ]
},
{
  "Name": "Neck-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [39, -1, 17, 14, 14, 13, 2]},
    {"Taxon": "French",     "Segments": [39, -1, 13, -1, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [39, 47, 6, -1, 67, 17, -1]},
    {"Taxon": "Italian",    "Segments": [39, -1, 17, 14, 14, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [39, -1, 23, -1, 14, 13, -1]},
    {"Taxon": "Portuguese",  "Segments": [39, -1, 23, -1, 14, 13, -1]},
    {"Taxon": "Catalan",    "Segments": [39, -1, 23, -1, 18, -1, -1]},
    {"Taxon": "Walloon",    "Segments": [39, -1, 17, -1, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [39, 47, 12, -1, 14, -1, -1]}
  ]
},
{
  "Name": "Back-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [21, -1, 17, 15, 33, 13, 2]},
    {"Taxon": "French",     "Segments": [21, -1, 17, -1, -1, -1, -1]},
    {"Taxon": "Italian",    "Segments": [21, -1, 23, 33, 33, 17, -1]},
    {"Taxon": "Catalan",    "Segments": [21, -1, 17, -1, 33, -1, -1]},
    {"Taxon": "Walloon",    "Segments": [21, -1, 17, -1, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [21, 47, 12, -1, 33, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [21, -1, 17, -1, -1, -1, -1]}
  ]
},
],
```



## Appendix 1 - Tongue Twister Configuration

---

```
{
  "Name": "Back-Spatula", "Data": [
    { "Taxon": "Latin", "Segments": [-1, 33, 34, 5, 26, 13, 14, 5] },
    { "Taxon": "French", "Segments": [6, -1, 34, 17, -1, -1, 14, -1] },
    { "Taxon": "Spanish", "Segments": [6, 33, 34, 5, 14, -1, 21, 5] },
    { "Taxon": "Italian", "Segments": [-1, 33, 34, 5, 14, -1, 14, 5] },
    { "Taxon": "PortugueseBrazil", "Segments": [3, 36, 34, 5, 21, 47, -1, 9] },
    { "Taxon": "Portuguese", "Segments": [3, 36, 34, 5, 21, 47, -1, 9] },
    { "Taxon": "Catalan", "Segments": [24, 33, 34, 5, 18, -1, 18, 24] },
    { "Taxon": "Walloon", "Segments": [-1, 33, 34, 5, -1, -1, 14, -1] },
    { "Taxon": "Friulian", "Segments": [-1, 33, 34, 5, -1, -1, 14, 6] },
    { "Taxon": "Romanian", "Segments": [-1, 33, 34, 5, 26, -1, -1, 6] }
  ],
  "Name": "Breast-Primary", "Data": [
    { "Taxon": "Latin", "Segments": [33, 3, 4, 13, 33] },
    { "Taxon": "French", "Segments": [33, 56, -1, -1, -1] },
    { "Taxon": "Spanish", "Segments": [33, 6, 4, 17, -1] },
    { "Taxon": "Italian", "Segments": [33, 6, 4, 17, -1] },
    { "Taxon": "PortugueseBrazil", "Segments": [33, 45, -1, 13, -1] },
    { "Taxon": "Portuguese", "Segments": [33, 46, -1, 13, -1] },
    { "Taxon": "Catalan", "Segments": [33, 3, -1, -1, -1] },
    { "Taxon": "Friulian", "Segments": [33, 12, 4, -1, -1] },
    { "Taxon": "Romanian", "Segments": [33, 5, 4, -1, -1] }
  ],
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    { "Taxon": "Latin", "Segments": [34, -1, 6, 39, 26, 13, 33] },
    { "Taxon": "French", "Segments": [34, -1, 3, -1, -1, -1, -1] },
    { "Taxon": "Spanish", "Segments": [34, -1, 6, -1, 30, 17, -1] },
    { "Taxon": "Italian", "Segments": [34, -1, 12, 26, 26, 17, -1] },
    { "Taxon": "PortugueseBrazil", "Segments": [34, -1, 45, -1, 26, 13, -1] },
    { "Taxon": "Portuguese", "Segments": [34, -1, 46, -1, 26, 13, -1] },
    { "Taxon": "Catalan", "Segments": [34, -1, 3, -1, 26, -1, -1] },
    { "Taxon": "Friulian", "Segments": [34, -1, 12, -1, 26, -1, -1] },
    { "Taxon": "Romanian", "Segments": [34, 10, 6, 34, 26, -1, -1] }
  ],
  "Name": "Breast-Pectorina", "Data": [
    { "Taxon": "French", "Segments": [34, 47, 5, 26, 19, 3, 4] },
    { "Taxon": "Walloon", "Segments": [34, 47, 12, 26, 15, 3, 4] }
  ],
  "Name": "Heart-Primary", "Data": [
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    { "Taxon": "French", "Segments": [39, -1, 11, 19, -1] },
    { "Taxon": "Italian", "Segments": [39, 47, 23, 15, 6] },
    { "Taxon": "PortugueseBrazil", "Segments": [39, -1, 23, 19, -1] },
    { "Taxon": "Portuguese", "Segments": [39, -1, 17, 8, -1] },
    { "Taxon": "Catalan", "Segments": [39, -1, 23, 15, -1] },
    { "Taxon": "Walloon", "Segments": [39, -1, 13, 15, -1] },
    { "Taxon": "Friulian", "Segments": [39, -1, 60, 15, -1] }
  ],
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    { "Taxon": "French", "Segments": [59, -1, -1, 2, -1] },
    { "Taxon": "Spanish", "Segments": [5, 14, -1, 2, 5] },
    { "Taxon": "Italian", "Segments": [5, 14, -1, 2, 5] },
    { "Taxon": "PortugueseBrazil", "Segments": [5, 47, -1, 2, 9] },
    { "Taxon": "Portuguese", "Segments": [5, 14, -1, 2, 9] },
    { "Taxon": "Walloon", "Segments": [59, -1, -1, 2, -1] },
    { "Taxon": "Romanian", "Segments": [3, 4, 3, 2, 24] }
  ]
}
```

## Appendix 1 - Tongue Twister Configuration

---

```
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  {"Taxon": "French", "Segments": [0, 47, 59, -1, -1, -1, -1, -1]}},
  {"Taxon": "Spanish", "Segments": [-1, -1, 3, 81, 5, 37, 17, -1]}},
  {"Taxon": "Italian", "Segments": [0, -1, 6, 63, 5, 26, 17, -1]}},
  {"Taxon": "PortugueseBrazil", "Segments": [0, -1, 3, 63, 9, 21, 13, -1]}},
  {"Taxon": "Portuguese", "Segments": [0, -1, 3, 81, 9, 37, 13, -1]}},
  {"Taxon": "Catalan", "Segments": [0, -1, 6, 68, 24, -1, -1, -1]}},
  {"Taxon": "Walloon", "Segments": [0, -1, 11, -1, -1, 26, -1, -1]}},
  {"Taxon": "Friulian", "Segments": [0, -1, 3, -1, 41, 26, -1, -1]}},
  {"Taxon": "Romanian", "Segments": [0, -1, 3, 39, 5, 26, -1, -1]}},
}},
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  {"Taxon": "Spanish", "Segments": [33, 17, 14, -1, -1]}},
  {"Taxon": "Italian", "Segments": [33, 17, 14, 6, -1]}},
  {"Taxon": "PortugueseBrazil", "Segments": [33, 23, 47, -1, -1]}},
  {"Taxon": "Portuguese", "Segments": [33, 23, 58, -1, -1]}},
  {"Taxon": "Catalan", "Segments": [33, 23, 14, -1, -1]}},
  {"Taxon": "Romanian", "Segments": [33, 25, 8, 6, -1]}},
}},
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  {"Taxon": "French", "Segments": [33, 23, 14, 76, -1, -1, -1, -1, -1]}},
  {"Taxon": "Walloon", "Segments": [33, 23, 14, 23, -1, -1, -1, -1, -1]}},
  {"Taxon": "Friulian", "Segments": [33, 17, 15, 6, -1, -1, 14, 3, -1]}},
}},
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  {"Taxon": "French", "Segments": [14, 62, 4, -1]}},
  {"Taxon": "Spanish", "Segments": [14, 13, 4, 5]}},
  {"Taxon": "Italian", "Segments": [14, 13, 4, 5]}},
  {"Taxon": "PortugueseBrazil", "Segments": [14, 13, -1, 9]}},
  {"Taxon": "Portuguese", "Segments": [14, 13, -1, 9]}},
  {"Taxon": "Catalan", "Segments": [18, 13, 4, 24]}},
  {"Taxon": "Walloon", "Segments": [14, 73, 4, -1]}},
  {"Taxon": "Friulian", "Segments": [14, 13, 4, 6]}},
  {"Taxon": "Romanian", "Segments": [14, 13, 4, 24]}},
}},
{"Name": "Star-Primary", "Data": [
  {"Taxon": "Latin", "Segments": [-1, 33, 26, -1, 1, 14, 14, 5]}},
  {"Taxon": "French", "Segments": [6, -1, 26, 47, 5, -1, 14, -1]}},
  {"Taxon": "Spanish", "Segments": [6, 33, 26, 8, 6, -1, 67, 5]}},
  {"Taxon": "Italian", "Segments": [-1, 33, 26, -1, 6, 14, 14, 5]}},
  {"Taxon": "PortugueseBrazil", "Segments": [3, 33, 26, 8, 6, -1, 14, 9]}},
  {"Taxon": "Portuguese", "Segments": [31, 36, 26, 8, 6, -1, 14, 9]}},
  {"Taxon": "Catalan", "Segments": [24, 33, 26, -1, 12, -1, 14, -1]}},
  {"Taxon": "Walloon", "Segments": [-1, 33, 26, -1, 11, -1, 14, -1]}},
  {"Taxon": "Friulian", "Segments": [-1, 33, 26, -1, 12, -1, 14, 6]}},
  {"Taxon": "Romanian", "Segments": [-1, 33, 26, -1, 74, -1, -1, -1]}},
}},
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  {"Taxon": "French", "Segments": [17, -1, -1, -1, -1]}},
  {"Taxon": "Spanish", "Segments": [5, -1, 81, 47, 5]}},
  {"Taxon": "Italian", "Segments": [5, 39, 39, 47, 5]}},
```

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```
{
  "Taxon": "PortugueseBrazil", "Segments": [5, -1, 63, 47, 9]},
  "Taxon": "Portuguese", "Segments": [5, -1, 63, 47, 9]},
  "Taxon": "Catalan", "Segments": [43, -1, 81, 47, 24]},
  "Taxon": "Walloon", "Segments": [12, -1, -1, 47, -1]},
  "Taxon": "Friulian", "Segments": [5, -1, 63, -1, 6]},
  "Taxon": "Romanian", "Segments": [5, -1, 34, -1, 24]}
}],
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    {"Taxon": "Spanish", "Segments": [67, -1, 13, -1, 7, 10, 5]},
    {"Taxon": "Italian", "Segments": [34, 10, 17, 21, 68, -1, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [36, -1, 13, -1, 50, -1, 9]},
    {"Taxon": "Portuguese", "Segments": [36, -1, 13, -1, 50, -1, 9]},
    {"Taxon": "Catalan", "Segments": [34, 14, 13, -1, 79, -1, 24]},
    {"Taxon": "Walloon", "Segments": [34, 14, 12, -1, 0, -1, -1]},
    {"Taxon": "Friulian", "Segments": [34, 14, 17, -1, -1, 10, 6]},
    {"Taxon": "Romanian", "Segments": [34, 14, 25, -1, -1, 10, 6]}
  ]
},
{
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    {"Taxon": "Italian", "Segments": [0, 10, 13, 2, 6, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [0, 14, 13, 2, 3, -1]},
    {"Taxon": "Portuguese", "Segments": [0, 14, 13, 2, 31, -1]},
    {"Taxon": "Friulian", "Segments": [0, 14, 13, 2, -1, -1]}
  ]
},
{
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    {"Taxon": "French", "Segments": [19, 62, -1, -1, -1]},
    {"Taxon": "Spanish", "Segments": [15, 3, -1, 17, -1]},
    {"Taxon": "Italian", "Segments": [15, 3, -1, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [19, 3, -1, 47, -1]},
    {"Taxon": "Portuguese", "Segments": [19, 3, -1, 13, -1]},
    {"Taxon": "Catalan", "Segments": [15, 3, -1, 47, -1]},
    {"Taxon": "Walloon", "Segments": [15, 12, -1, -1, -1]},
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    {"Taxon": "Romanian", "Segments": [15, 31, -1, 47, -1]}
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    {"Taxon": "French", "Segments": [19, 3, 50, 10, 6, 19, -1, -1]},
    {"Taxon": "Walloon", "Segments": [15, 3, 50, 20, -1, 15, -1, -1]}
  ]
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{
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    {"Taxon": "French", "Segments": [14, 5, 39, -1, -1]},
    {"Taxon": "Spanish", "Segments": [14, 5, 63, 17, -1]},
    {"Taxon": "Italian", "Segments": [14, 5, 63, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [14, 5, 63, 13, -1]},
    {"Taxon": "Portuguese", "Segments": [14, 5, 81, 13, -1]},
    {"Taxon": "Catalan", "Segments": [18, 5, 39, -1, -1]},
    {"Taxon": "Walloon", "Segments": [14, 5, 39, -1, -1]},
    {"Taxon": "Friulian", "Segments": [14, 41, 26, -1, -1]},
    {"Taxon": "Romanian", "Segments": [14, 5, 39, -1, -1]}
  ]
},
{
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  ]
}
```

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```
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  "Taxon": "Spanish",        "Segments": [2, 5, 8, -1]},
  "Taxon": "Italian",         "Segments": [2, 5, 15, 6]},
  "Taxon": "PortugueseBrazil", "Segments": [2, 5, 19, -1]},
  "Taxon": "Portuguese",      "Segments": [2, 5, 8, -1]},
  "Taxon": "Catalan",         "Segments": [2, 5, 15, -1]},
  "Taxon": "Walloon",         "Segments": [2, 6, 15, -1]},
  "Taxon": "Friulian",        "Segments": [2, 41, 15, -1]},
  "Taxon": "Romanian",        "Segments": [2, 5, 15, 6]}
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    {"Taxon": "Spanish",         "Segments": [33, 5, 14, -1, -1]},
    {"Taxon": "Italian",         "Segments": [33, 5, 14, 6, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [33, 5, 47, -1, -1]},
    {"Taxon": "Portuguese",      "Segments": [33, 5, 14, -1, -1]},
    {"Taxon": "Catalan",         "Segments": [33, 5, 14, -1, -1]},
    {"Taxon": "Walloon",         "Segments": [33, 6, -1, -1, -1]},
    {"Taxon": "Friulian",        "Segments": [33, 41, 14, -1, -1]},
    {"Taxon": "Romanian",        "Segments": [33, 5, 15, 6, -1]}
  ]
},
{
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    {"Taxon": "PortugueseBrazil", "Segments": [33, 45, -1, 36, 13, -1]},
    {"Taxon": "Portuguese",      "Segments": [33, 46, -1, 36, 13, -1]},
    {"Taxon": "Friulian",        "Segments": [33, 5, -1, 33, -1, -1]}
  ]
},
{
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    {"Taxon": "Spanish",         "Segments": [34, 10, 6, 37, 8, 5]},
    {"Taxon": "Italian",         "Segments": [34, 10, 6, 26, 15, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [34, -1, 6, 21, 8, 9]},
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    {"Taxon": "Catalan",         "Segments": [34, -1, 6, 37, 8, 24]},
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    {"Taxon": "Romanian",        "Segments": [34, 10, 5, 26, 8, 24]}
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    {"Taxon": "Spanish",         "Segments": [14, 5, 13, -1, 21, 6, -1]}
  ]
},
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    {"Taxon": "Italian",         "Segments": [-1, -1, 15, 12, 4, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [-1, 5, 8, 45, -1, 9]},
    {"Taxon": "Portuguese",      "Segments": [-1, 9, 8, 46, -1, 9]},
    {"Taxon": "Catalan",         "Segments": [-1, 24, 8, 6, 4, 24]},
    {"Taxon": "Walloon",         "Segments": [-1, 5, 15, 12, 4, -1]},
    {"Taxon": "Friulian",        "Segments": [-1, -1, 15, 12, 4, 6]},
    {"Taxon": "Romanian",        "Segments": [-1, 5, 15, 3, 4, 24]}
  ]
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{
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```
{
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  "Taxon": "Catalan",        "Segments": [33, 17, -1, -1, 15, 24, -1]}
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    {"Taxon": "Friulian",       "Segments": [33, 5, 50, 5, 14, 23, 4, -1, -1]}
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    {"Taxon": "Italian",        "Segments": [34, 17, 14, 50, 6, 15, 6, -1]},
    {"Taxon": "Friulian",       "Segments": [34, 23, 14, 50, 5, 15, -1, -1]},
    {"Taxon": "Romanian",       "Segments": [34, 13, 14, 7, 6, 15, 6, -1]}
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    {"Taxon": "Spanish",        "Segments": [34, 17, 14, 7, 17, -1]},
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    {"Taxon": "Portuguese",     "Segments": [34, 23, -1, -1, -1, -1]},
    {"Taxon": "Catalan",        "Segments": [34, 17, 14, -1, -1, 33]}
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},
{
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    {"Taxon": "French",         "Segments": [26, -1, 6, -1, 19, -1]},
    {"Taxon": "Spanish",        "Segments": [26, 10, 6, -1, 15, 5]},
    {"Taxon": "Italian",        "Segments": [26, -1, 12, 15, 15, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [26, -1, 6, -1, 19, 9]},
    {"Taxon": "Portuguese",     "Segments": [26, -1, 12, -1, 19, 9]},
    {"Taxon": "Catalan",        "Segments": [26, -1, 12, -1, 15, 24]},
    {"Taxon": "Walloon",        "Segments": [26, -1, 6, -1, 15, -1]},
    {"Taxon": "Friulian",       "Segments": [26, 10, 12, -1, 15, 6]},
    {"Taxon": "Romanian",       "Segments": [40, -1, 5, -1, 15, 24]}
  ]
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{
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    {"Taxon": "French",         "Segments": [4, 62, -1, -1, -1]},
    {"Taxon": "Spanish",        "Segments": [4, 13, 7, 6, -1]},
    {"Taxon": "Italian",        "Segments": [4, 13, 7, 6, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [4, 13, 50, 32, -1]},
    {"Taxon": "Portuguese",     "Segments": [4, 13, 50, 42, -1]}
  ]
},
{
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    {"Taxon": "Spanish",        "Segments": [4, 13, 7, -1, 14, 17, -1]},
    {"Taxon": "Italian",        "Segments": [4, 13, 50, 17, 14, 5, -1]},
    {"Taxon": "Catalan",        "Segments": [4, 13, 50, 17, 14, -1, -1]},
    {"Taxon": "Friulian",       "Segments": [4, 60, -1, -1, 14, -1, -1]},
    {"Taxon": "Romanian",       "Segments": [4, 17, -1, -1, 15, -1, -1]}
  ]
},
{
  "Name": "Fog-Primary", "Data": [
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    {"Taxon": "PortugueseBrazil", "Segments": [39, 5, 14, 3, 79, 32, -1, -1, -1]},
    {"Taxon": "Portuguese",     "Segments": [39, 9, 14, 3, 79, 42, -1, -1, -1]}
  ]
}
```

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```
}},
{"Name": "Fog-Nebula", "Data": [
  {"Taxon": "Latin", "Segments": [4, -1, 6, -1, 7, 13, 14, 5]},
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  {"Taxon": "Italian", "Segments": [4, -1, 6, 7, 7, -1, 10, 5]},
  {"Taxon": "PortugueseBrazil", "Segments": [4, -1, 12, -1, 50, 47, -1, 9]},
  {"Taxon": "Portuguese", "Segments": [4, -1, 12, -1, 50, 47, -1, 9]},
  {"Taxon": "Catalan", "Segments": [4, -1, 6, -1, -1, 47, 14, 24]},
  {"Taxon": "Walloon", "Segments": [4, 10, 62, -1, -1, -1, 14, -1]},
  {"Taxon": "Romanian", "Segments": [4, -1, 6, -1, 63, 13, 15, 24]}
]},
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  {"Taxon": "Spanish", "Segments": [26, -1, 3, 4, 10, 6, 7, 14, 5, 33]},
  {"Taxon": "PortugueseBrazil", "Segments": [26, 8, -1, -1, -1, 12, 50, -1, 9, 33]},
  {"Taxon": "Portuguese", "Segments": [26, 8, -1, -1, -1, 12, 50, -1, 9, 36]},
  {"Taxon": "Catalan", "Segments": [26, -1, 24, 4, -1, 6, 7, 8, 24, 33]}
]},
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  {"Taxon": "French", "Segments": [0, 62, 2, 6, -1, -1]},
  {"Taxon": "Spanish", "Segments": [0, 13, 2, 5, 26, 5]},
  {"Taxon": "Italian", "Segments": [0, 13, 2, 41, 26, 5]},
  {"Taxon": "PortugueseBrazil", "Segments": [0, 13, 2, 5, 33, 9]},
  {"Taxon": "Portuguese", "Segments": [0, 13, 2, 5, 33, 9]},
  {"Taxon": "Friulian", "Segments": [0, 13, 2, 5, 26, 6]}
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  {"Taxon": "Romanian", "Segments": [30, 74, 30, -1, 24]}
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  {"Taxon": "French", "Segments": [33, 10, 12, 14, -1, -1]},
  {"Taxon": "Spanish", "Segments": [44, 10, 6, 14, 17, -1]},
  {"Taxon": "Italian", "Segments": [30, -1, 12, 14, 17, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [33, -1, 12, 47, -1, -1]},
  {"Taxon": "Portuguese", "Segments": [33, -1, 12, 47, -1, -1]},
  {"Taxon": "Catalan", "Segments": [33, -1, 12, 14, -1, -1]},
  {"Taxon": "Walloon", "Segments": [33, -1, 3, 15, -1, -1]},
  {"Taxon": "Friulian", "Segments": [30, -1, 20, 14, -1, -1]},
  {"Taxon": "Romanian", "Segments": [30, -1, 6, 8, -1, -1]}
]},
{"Name": "Wind-Primary", "Data": [
  {"Taxon": "Latin", "Segments": [47, -1, 6, 4, 26, 13, 2]},
  {"Taxon": "French", "Segments": [50, -1, 27, -1, -1, -1, -1]},
  {"Taxon": "Spanish", "Segments": [7, 10, 6, 4, 26, 17, -1]},
  {"Taxon": "Italian", "Segments": [50, -1, 12, 4, 26, 17, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [50, -1, 56, -1, 26, 13, -1]},
  {"Taxon": "Portuguese", "Segments": [50, -1, 56, -1, 26, 13, -1]},
  {"Taxon": "Catalan", "Segments": [7, -1, 6, 4, -1, -1, -1]},
  {"Taxon": "Walloon", "Segments": [50, -1, 52, -1, -1, -1, -1]},
  {"Taxon": "Friulian", "Segments": [50, -1, 3, 4, 26, -1, -1]},
  {"Taxon": "Romanian", "Segments": [50, -1, 31, 4, 26, -1, -1]}
]},
{"Name": "Snow-Primary", "Data": [
  {"Taxon": "Latin", "Segments": [4, -1, 3, 47, 6, 2]},

```



## Appendix 1 - Tongue Twister Configuration

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```
{
  "Taxon": "Spanish",      "Segments": [4, 10, 6, 7, 6, -1]},
  "Taxon": "Italian",     "Segments": [4, -1, 6, 50, 6, -1]},
  "Taxon": "PortugueseBrazil", "Segments": [4, -1, 12, 50, 3, -1]},
  "Taxon": "Portuguese",   "Segments": [4, -1, 12, 50, 31, -1]},
  "Taxon": "Catalan",      "Segments": [4, -1, 6, 47, -1, -1]},
  "Taxon": "Walloon",      "Segments": [4, -1, 3, 50, 43, -1]},
  "Taxon": "Friulian",     "Segments": [4, -1, 1, 0, -1, -1]},
  "Taxon": "Romanian",     "Segments": [4, -1, 74, -1, -1, -1]}
}],
{
  "Name": "Ice-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [63, 6, 14, 60]},
    {"Taxon": "French",     "Segments": [79, 12, 14, -1]},
    {"Taxon": "Spanish",    "Segments": [67, 6, 14, 17]},
    {"Taxon": "Italian",    "Segments": [68, 12, 14, 17]},
    {"Taxon": "Catalan",    "Segments": [79, 12, 58, -1]},
    {"Taxon": "Romanian",   "Segments": [68, 6, 15, -1]}
  ]
},
{
  "Name": "Ice-Glaciers", "Data": [
    {"Taxon": "French",     "Segments": [63, 14, 5, -1, 33, -1]},
    {"Taxon": "Italian",    "Segments": [63, 10, 5, 26, 30, 5]},
    {"Taxon": "Catalan",    "Segments": [63, 14, 5, -1, 33, -1]},
    {"Taxon": "Walloon",    "Segments": [63, 14, 12, -1, 33, -1]},
    {"Taxon": "Friulian",   "Segments": [63, 14, 5, -1, 30, 6]},
    {"Taxon": "Romanian",   "Segments": [63, -1, 74, -1, 40, 24]}
  ]
},
{
  "Name": "Smoke-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [0, 60, 2, 13, 33]},
    {"Taxon": "Spanish",    "Segments": [-1, 13, 2, 17, -1]},
    {"Taxon": "Italian",    "Segments": [0, 13, 2, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [0, 13, 2, 13, -1]},
    {"Taxon": "Portuguese", "Segments": [0, 13, 2, 13, -1]},
    {"Taxon": "Catalan",    "Segments": [0, 13, 2, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [0, 13, 2, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [0, 13, 2, -1, -1]}
  ]
},
{
  "Name": "Fire-Focus", "Data": [
    {"Taxon": "Latin",      "Segments": [0, -1, 17, 39, 13, 2]},
    {"Taxon": "French",     "Segments": [0, -1, 73, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [0, 47, 6, 63, 17, -1]},
    {"Taxon": "Italian",    "Segments": [0, 47, 23, 39, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [0, -1, 17, 63, 13, -1]},
    {"Taxon": "Portuguese", "Segments": [0, -1, 17, 81, 13, -1]},
    {"Taxon": "Catalan",    "Segments": [0, -1, 23, 39, -1, -1]},
    {"Taxon": "Walloon",    "Segments": [0, -1, 11, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [0, -1, 60, 39, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [0, -1, 17, 39, -1, -1]}
  ]
},
{
  "Name": "Ash-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [39, 3, 4, 6, -1, 15, 6, 2]},
    {"Taxon": "French",     "Segments": [33, 27, -1, -1, 21, 19, -1, -1]},
    {"Taxon": "Italian",    "Segments": [30, 6, 4, 6, -1, 15, 6, -1]},
    {"Taxon": "Catalan",    "Segments": [33, 12, 4, -1, 21, 15, 24, -1]},
    {"Taxon": "Walloon",    "Segments": [33, 52, -1, -1, 26, -1, -1, -1]}
  ]
},
{
  "Name": "Ash-Cinisia", "Data": [
    {"Taxon": "Spanish",    "Segments": [44, 6, 4, 3, 44, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [33, 28, -1, -1, 35, 9]},
  ]
}
```

## Appendix 1 - Tongue Twister Configuration

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```
{
  "Taxon": "Portuguese",      "Segments": [33, 28, -1, -1, 35, 9]},
  "Taxon": "Friulian",       "Segments": [30, 3, 4, 3, 33, 12]},
  "Taxon": "Romanian",       "Segments": [30, 6, 4, 13, 36, 24]}
}],
{
  "Name": "Road-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [47, -1, 3, 5]},
    {"Taxon": "French",     "Segments": [50, 47, -1, 5]},
    {"Taxon": "Spanish",    "Segments": [7, -1, 3, 5]},
    {"Taxon": "Italian",    "Segments": [50, -1, 3, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [50, -1, 3, 9]},
    {"Taxon": "Portuguese", "Segments": [50, -1, 3, 9]},
    {"Taxon": "Catalan",    "Segments": [7, -1, 3, 24]},
    {"Taxon": "Walloon",    "Segments": [50, -1, 69, -1]},
    {"Taxon": "Friulian",   "Segments": [50, -1, 3, 6]}
  ]
},
{
  "Name": "Road-Strata", "Data": [
    {"Taxon": "Latin",      "Segments": [-1, 33, 26, 15, 41, 26, 5]},
    {"Taxon": "Spanish",    "Segments": [6, 33, 26, 8, 5, 21, 5]},
    {"Taxon": "Italian",    "Segments": [-1, 33, 26, 15, 5, 21, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [3, 33, 26, 8, 5, 21, 9]},
    {"Taxon": "Portuguese", "Segments": [3, 36, 26, 8, 5, 37, 9]},
    {"Taxon": "Friulian",   "Segments": [-1, 33, 26, 15, 5, 21, 6]}
  ]
},
{
  "Name": "Road-Camminus", "Data": [
    {"Taxon": "Latin",      "Segments": [39, 5, 2, 2, 20, 4, 13, 2]},
    {"Taxon": "French",     "Segments": [36, 24, -1, 2, 52, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [39, 5, -1, 2, 3, 4, 17, -1]},
    {"Taxon": "Italian",    "Segments": [39, 5, 2, 2, 3, 4, 17, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [39, 5, -1, 2, 28, 22, 13, -1]},
    {"Taxon": "Portuguese", "Segments": [39, 9, -1, 2, 3, 22, 13, -1]},
    {"Taxon": "Catalan",    "Segments": [39, 24, -1, 2, 3, -1, -1, -1]},
    {"Taxon": "Walloon",    "Segments": [30, 3, -1, 2, 52, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [54, 5, 2, 3, 4, -1, -1, -1]}
  ]
},
{
  "Name": "Mountain-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [2, 17, 4, 26, 6, 2]},
    {"Taxon": "French",     "Segments": [2, 72, -1, -1, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [2, 17, 4, 26, 6, -1]},
    {"Taxon": "Italian",    "Segments": [2, 17, 4, 26, 6, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [2, 48, -1, 30, 3, -1]},
    {"Taxon": "Portuguese", "Segments": [2, 48, -1, 26, 31, -1]},
    {"Taxon": "Catalan",    "Segments": [2, 13, 4, -1, -1, -1]},
    {"Taxon": "Walloon",    "Segments": [2, 72, -1, -1, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [2, 23, 4, 26, -1, -1]},
    {"Taxon": "Romanian",   "Segments": [2, 13, 4, 26, 12, -1]}
  ]
},
{
  "Name": "Mountain-Montanea", "Data": [
    {"Taxon": "Latin",      "Segments": [2, 17, 4, 26, 41, -1, 4, 6, 5]},
    {"Taxon": "French",     "Segments": [2, 48, -1, 26, 5, -1, 22, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [2, 17, 4, 26, 5, -1, 22, -1, 5]},
    {"Taxon": "Italian",    "Segments": [2, 17, 4, 26, 5, 22, 22, -1, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [2, 48, -1, 26, 29, -1, 22, -1, 9]},
    {"Taxon": "Portuguese", "Segments": [2, 48, -1, 26, 9, -1, 22, -1, 9]},
    {"Taxon": "Catalan",    "Segments": [2, 13, 4, 26, 5, -1, 22, -1, 24]},
    {"Taxon": "Walloon",    "Segments": [2, 72, -1, 26, 5, -1, 22, -1, -1]},
    {"Taxon": "Friulian",   "Segments": [2, 17, 4, 26, 5, -1, 22, 6, -1]}
  ]
},
]
```

## Appendix 1 - Tongue Twister Configuration

---

```
{
  "Name": "Night-Primary", "Data": [
    { "Taxon": "Latin", "Segments": [4, -1, 17, 54, 26, 6, 2] },
    { "Taxon": "French", "Segments": [4, 61, 3, -1, -1, -1, -1] },
    { "Taxon": "Spanish", "Segments": [4, -1, 17, -1, 30, 6, -1] },
    { "Taxon": "Italian", "Segments": [4, -1, 23, 26, 26, 6, -1] },
    { "Taxon": "PortugueseBrazil", "Segments": [4, -1, 69, -1, 26, 31, -1] },
    { "Taxon": "Portuguese", "Segments": [4, -1, 69, -1, 26, 31, -1] },
    { "Taxon": "Catalan", "Segments": [4, -1, 3, -1, 26, -1, -1] },
    { "Taxon": "Walloon", "Segments": [4, -1, 62, -1, 26, -1, -1] },
    { "Taxon": "Friulian", "Segments": [22, -1, 23, -1, 26, -1, -1] },
    { "Taxon": "Romanian", "Segments": [4, -1, 25, 34, 26, 6, -1] }
  ],
  "Name": "Day-Primary", "Data": [
    { "Taxon": "Latin", "Segments": [21, 3, 1, 33] },
    { "Taxon": "Spanish", "Segments": [21, 3, 5, -1] },
    { "Taxon": "Italian", "Segments": [21, 3, -1, -1] },
    { "Taxon": "PortugueseBrazil", "Segments": [21, 3, 9, -1] },
    { "Taxon": "Portuguese", "Segments": [21, 3, 9, -1] },
    { "Taxon": "Catalan", "Segments": [21, 3, 24, -1] },
    { "Taxon": "Friulian", "Segments": [21, 3, -1, -1] },
    { "Taxon": "Romanian", "Segments": [35, 3, -1, -1] }
  ],
  "Name": "Day-Diurnus", "Data": [
    { "Taxon": "Latin", "Segments": [21, 3, 13, 15, 4, 13, 2] },
    { "Taxon": "French", "Segments": [79, -1, 13, 19, -1, -1, -1] },
    { "Taxon": "Spanish", "Segments": [21, 10, 13, 8, 4, 17, -1] },
    { "Taxon": "Italian", "Segments": [68, -1, 17, 15, 4, 17, -1] },
    { "Taxon": "Catalan", "Segments": [79, -1, 17, 8, 4, -1, -1] },
    { "Taxon": "Walloon", "Segments": [68, -1, 13, -1, -1, -1, -1] }
  ],
  "Name": "Day-Diurna", "Data": [
    { "Taxon": "PortugueseBrazil", "Segments": [79, 23, 19, 4, 5] },
    { "Taxon": "Portuguese", "Segments": [79, 23, 19, 4, 5] }
  ],
  "Name": "Day-Diurnata", "Data": [
    { "Taxon": "Latin", "Segments": [21, 3, 13, 15, 4, 41, 26, 5] },
    { "Taxon": "French", "Segments": [79, -1, 13, 19, 4, 6, -1, -1] },
    { "Taxon": "Spanish", "Segments": [16, -1, 17, 8, 4, 5, 21, 5] },
    { "Taxon": "Italian", "Segments": [68, -1, 17, 15, 4, 5, 26, 5] },
    { "Taxon": "Friulian", "Segments": [68, -1, 17, 15, 4, 5, 21, 6] }
  ],
  "Name": "Year-Primary", "Data": [
    { "Taxon": "Latin", "Segments": [5, 4, 4, 13, 2] },
    { "Taxon": "French", "Segments": [27, -1, -1, -1, -1] },
    { "Taxon": "Spanish", "Segments": [5, -1, 22, 17, -1] },
    { "Taxon": "Italian", "Segments": [5, 4, 4, 17, -1] },
    { "Taxon": "PortugueseBrazil", "Segments": [9, -1, 4, 13, -1] },
    { "Taxon": "Portuguese", "Segments": [9, -1, 4, 13, -1] },
    { "Taxon": "Catalan", "Segments": [5, -1, 22, -1, -1] },
    { "Taxon": "Walloon", "Segments": [27, -1, -1, -1, -1] },
    { "Taxon": "Friulian", "Segments": [5, -1, 4, -1, -1] },
    { "Taxon": "Romanian", "Segments": [5, 4, -1, -1, -1] }
  ],
  "Name": "Name-Nomen", "Data": [
    { "Taxon": "Latin", "Segments": [4, 38, 2, 6, 4] },
    { "Taxon": "French", "Segments": [4, 72, -1, -1, -1] },
    { "Taxon": "Italian", "Segments": [4, 38, 2, 6, -1] },
  ]
}
```

## Appendix 1 - Tongue Twister Configuration

---

```
{
  "Taxon": "PortugueseBrazil", "Segments": [4, 17, 2, 3, -1]},
  "Taxon": "Portuguese",      "Segments": [4, 17, 2, 31, -1]},
  "Taxon": "Catalan",         "Segments": [4, 23, 2, -1, -1]},
  "Taxon": "Walloon",         "Segments": [4, 72, -1, -1, -1]},
  "Taxon": "Friulian",        "Segments": [4, 23, 4, -1, -1]},
  "Taxon": "Romanian",        "Segments": [4, 13, 2, 6, -1]}
}],
{
  "Name": "Name-Nominem", "Data": [
    {"Taxon": "Latin",      "Segments": [4, 38, 2, 3, 4, -1, 6, 2]},
    {"Taxon": "Spanish",    "Segments": [4, 17, 2, -1, 7, 8, 6, -1]}
  ]
},
{
  "Name": "Tongue-Primary", "Data": [
    {"Taxon": "Latin",      "Segments": [14, 3, 4, 70, -1, 5]},
    {"Taxon": "French",     "Segments": [14, 27, -1, 63, -1, -1]},
    {"Taxon": "Spanish",    "Segments": [14, 6, 71, 63, 47, 5]},
    {"Taxon": "Italian",    "Segments": [14, 3, 4, 63, 47, 5]},
    {"Taxon": "PortugueseBrazil", "Segments": [14, 28, -1, 63, 47, 9]},
    {"Taxon": "Portuguese", "Segments": [14, 28, -1, 63, 47, 9]},
    {"Taxon": "Catalan",    "Segments": [18, 12, 71, 63, 47, 24]},
    {"Taxon": "Walloon",    "Segments": [14, 52, -1, -1, 50, -1]},
    {"Taxon": "Friulian",   "Segments": [14, 12, 4, 63, -1, 6]},
    {"Taxon": "Romanian",   "Segments": [14, 3, 2, 7, -1, 24]}
  ]
}
]
```