```
"Tree": "(Latin,(Romanian,(((Walloon,French),(((Portuguese,PortugueseBrazil),Spanish),
Catalan)),(Friulian,Italian))));",
  "NumberOfStates": 85,
  "McmcSettings": {
  "OnlyCompleteWords": "No",
  "Model": "Custom",
  "CalcMarginal": "No",
  "UseEigenSystem": "No",
  "NumCycles": 300000,
  "PrintFreq": 1000,
  "SampleFreq": 100,
  "TreeLengthPriorVal": 0.15
  "Taxa": ["Latin", "French", "Spanish", "Italian", "PortugueseBrazil", "Portuguese", "Catalan",
"Walloon", "Friulian", "Romanian"],
  "PriorFrequencies": [4.233778,3.589508,2.024850,3.957662,3.129314,2.807179,4.417855,
0.092039,0.828348,0.046019,0.046019,0.736309,1.702715,1.932812,2.761160,0.046019,3.957662,
3.083295,4.141740,0.184077,1.702715,0.046019,0.046019,3.773585,0.368155,2.577082,0.506213,
2.899218,1.242522,0.046019,3.129314,4.049701,1.380580,0.230097,4.141740,2.024850,0.874367,
1.196503,0.092039,1.012425,0.368155,0.046019,0.644271,0.046019,0.966406,2.116889,1.610676,
0.966406,0.138058,0.046019,0.046019,0.460193,1.380580,1.472618,0.230097,1.334561,0.046019,
0.046019,0.322135,0.276116,2.623102,2.899218,0.138058,0.092039,0.460193,0.046019,0.046019,
0.138058,0.690290,0.506213,0.736309,0.552232,0.644271,0.230097,0.046019,0.552232,0.046019,
0.092039,0.276116,0.046019,0.046019,0.644271,0.046019,0.736309,0.046019],
78, 81]},{"Name": "Nasal Consonant", "Set": [1, 6, 13, 61]},{"Name": "Non Sylabic Sonorant", "Set":
[23, 30, 34, 35]],{"Name": "Consonant", "Set": [2, 4, 10, 16, 17, 18, 19, 20, 25, 27, 28, 32, 33,
36, 37, 42, 45, 51, 54, 56, 59, 60, 63, 64, 65, 67, 70, 71, 72, 73, 75, 77, 79, 80]}],
  "Words": [
  {"Name": "Child-Primary", "Data": [
    {"Taxon": "Latin",
                                 "Segments": [0, 1, 2, 3, 1, 4, 5, 6]},
    {"Taxon": "French"
                                 "Segments": [7, -1, 2, 7, -1, -1, -1]},
    {"Taxon": "Spanish",
                                 "Segments": [0, 1, 2, 3, 1, 4, 5, -1]},
    {"Taxon": "Italian",
                                 "Segments": [-1, -1, 2, 3, 1, 4, 5, -1]},
    {"Taxon": "PortugueseBrazil", "Segments": [8, -1, 2, 9, -1, 10, 0, -1]},
                                 "Segments": [8, -1, 2, 9, -1, 4, 11, -1]},
    {"Taxon": "Portuguese",
    {"Taxon": "Walloon",
                                 "Segments": [12, -1, 2, 7, -1, -1, -1, -1]}
  ]},
  {"Name": "Child-Ninnus", "Data": [
                                 "Segments": [1, 0, 13, 14]},
    {"Taxon": "Spanish",
    {"Taxon": "Italian",
                                 "Segments": [1, 0, 1, 14]},
    {"Taxon": "PortugueseBrazil", "Segments": [1, 5, 1, 15]},
    {"Taxon": "Portuguese",
                                 "Segments": [1, 5, 1, 15]},
    {"Taxon": "Catalan",
                                 "Segments": [1, 5, 1, -1]},
    {"Taxon": "Friulian",
                                 "Segments": [1, 0, 1, 0]}
  ]},
  {"Name": "Fish-Piskem", "Data": [
    {"Taxon": "Latin",
                                 "Segments": [16, 0, 17, 18, 5, 6]},
    {"Taxon": "Spanish",
                                 "Segments": [16, 5, 19, -1, -1, -1]},
    {"Taxon": "Italian",
                                 "Segments": [16, 5, 20, 20, 5, -1]},
                                 "Segments": [16, 21, 20, -1, 0, -1]},
    {"Taxon": "PortugueseBrazil",
    {"Taxon": "Portuguese",
                                 "Segments": [16, 22, 20, -1, 11, -1]},
    {"Taxon": "Catalan",
                                 "Segments": [16, 5, 20, -1, -1, -1]},
    {"Taxon": "Friulian"
                                 "Segments": [16, 12, 17, -1, -1, -1]},
    {"Taxon": "Romanian",
                                 "Segments": [16, 5, 20, 4, 5, -1]}
  {"Name": "Fish-Pescion", "Data": [
```

## Appendix 1 - Tongue Twister Configuration

```
"Segments": [16, 23, 3, 17, 24]},
  {"Taxon": "French",
  {"Taxon": "Walloon",
                                 "Segments": [16, -1, 12, 25, 26]}
]},
{"Name": "Bird-Avem", "Data": [
                                 "Segments": [3, 23, 5, 6]},
  {"Taxon": "Latin",
  {"Taxon": "Spanish",
                                 "Segments": [3, 27, 5, -1]},
                                 "Segments": [3, 28, 0, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [3, 28, 11, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [3, 23, -1, -1]}
]},
{"Name": "Bird-Aucellus", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [-1, 29, 18, -1, 5, 30, 30, 31, 17]},
  {"Taxon": "French"
                                 "Segments": [23, 3, 32, -1, 14, -1, -1, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [-1, 31, 4, 10, 12, 30, 30, 14, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [-1, 31, 17, -1, 5, -1, 33, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [-1, 31, 25, -1, 12, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [-1, 31, 10, 34, 12, -1, 30, -1, -1]}
{"Name": "Bird-Passerem", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [16, 3, 17, 17, 5, 35, 5, 6]},
  {"Taxon": "Spanish",
                                 "Segments": [16, 3, -1, 36, 3, 37, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [16, 3, 17, 17, 5, 35, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [16, 3, -1, 17, 38, 37, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [16, 3, -1, 17, 38, 37, 31, -1]},
                                 "Segments": [16, 3, -1, 17, 3, 35, -1, -1]},
"Segments": [16, 3, -1, 17, 39, 37, 5, -1]}
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
]},
{"Name": "Dog-Primary", "Data":
                                 "Segments": [18, -1, 3, 1, 5, 6]},
  {"Taxon": "Latin",
 {"Taxon": "French", {"Taxon": "Spanish",
                                 "Segments": [20, 34, 40, -1, -1, -1]},
                                 "Segments": [18, -1, 3, 1, -1, -1]},
                                 "Segments": [18, -1, 3, 1, 5, -1]},
"Segments": [18, -1, 41, -1, -1, -1]},
  {"Taxon": "Italian",
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [18, -1, 41, -1, -1, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [18, -1, 3, -1, -1, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [10, -1, 40, -1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [42, -1, 3, 1, -1, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [18, -1, 43, 1, 5, -1]}
]},
{"Name": "Louse-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [16, -1, 44, 45, 31, -1, 18, 31, 30, 31, 17]},
  {"Taxon": "French",
                                 "Segments": [16, -1, 31, -1, -1, -1, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [16, 34, 14, -1, -1, -1, 36, -1, -1, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [16, -1, 0, 45, 46, 18, 18, -1, 34, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [16, -1, 0, -1, 14, -1, -1, 33, 31, -1, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [16, -1, 0, -1, 14, -1, -1, 33, 31, -1, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [16, -1, 14, -1, -1, -1, -1, 33, -1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [16, 34, 31, -1, -1, -1, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [16, -1, 5, 45, 47, -1, -1, 30, 0, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [16, -1, 39, 45, 31, -1, 18, -1, 34, 5, -1]}
{"Name": "Leaf-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [2, -1, 14, 30, 0, 3]},
  {"Taxon": "French"
                                 "Segments": [2, -1, 48, 34, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [-1, -1, 14, 36, -1, 3]},
  {"Taxon": "Italian",
                                 "Segments": [2, -1, 46, 33, 33, 3]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [2, -1, 14, 33, -1, 38]},
  {"Taxon": "Portuguese",
                                 "Segments": [2, -1, 14, 33, -1, 38]},
  {"Taxon": "Catalan",
                                 "Segments": [2, -1, 31, 33, -1, 39]},
  {"Taxon": "Walloon"
                                 "Segments": [2, -1, 49, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [2, 23, 5, -1, -1, 5]},
```

```
{"Taxon": "Romanian",
                                "Segments": [2, -1, 50, -1, 34, 5]}
]},
{"Name": "Leaf-Frondea", "Data": [
  {"Taxon": "Latin",
                                "Segments": [2, 35, 14, 1, 45, 5, 3]},
  {"Taxon": "Italian",
                                "Segments": [2, 35, 14, 1, 51, -1, 3]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [2, 37, 26, -1, 17, -1, 38]},
                                "Segments": [2, 37, 26, -1, 17, -1, 38]},
  {"Taxon": "Portuguese",
  {"Taxon": "Romanian",
                                "Segments": [2, 37, 31, 1, 32, -1, 39]}
1},
{"Name": "Root-Primary", "Data": [
  {"Taxon": "Latin",
                                "Segments": [-1, 35, 52, 45, -1, 53, 18, 5, 6]},
  {"Taxon": "Spanish",
                                "Segments": [-1, 35, 3, -1, -1, 0, 19, -1, -1]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [-1, 54, 3, -1, -1, 0, 17, -1, -1]},
                                "Segments": [-1, 54, 38, -1, -1, 0, 20, -1, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                "Segments": [39, 35, 12, 30, -1, -1, -1, -1,]},
  {"Taxon": "Friulian",
                                "Segments": [-1, 35, 3, 45, 35, 53, 17, -1, -1]}
]},
{"Name": "Root-Radicina", "Data": [
  {"Taxon": "Latin",
                                "Segments": [35, 52, 45, 53, 18, 53, 1, 3]},
  {"Taxon": "French",
                                "Segments": [54, 3, -1, -1, 17, 0, 1, -1]},
  {"Taxon": "Walloon"
                                "Segments": [35, 12, -1, -1, 17, 12, 1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [35, 39, 45, 39, 10, 0, 1, 39]}
]},
{"Name": "Rope-Primary", "Data": [
  {"Taxon": "Latin",
                                "Segments": [2, 55, 1, -1, 5, 6]},
  {"Taxon": "Italian"
                                "Segments": [2, 31, 1, -1, 5, -1]},
  {"Taxon": "Romanian",
                                "Segments": [2, 31, 1, 34, 5, -1]}
]},
{"Name": "Rope-Restis", "Data": [
                                "Segments": [35, 5, 17, 4, -1, 5, 6]},
  {"Taxon": "Latin",
  {"Taxon": "Spanish",
                                "Segments": [35, -1, 0, 17, 4, 37, 3]},
  {"Taxon": "Italian",
                                "Segments": [35, -1, 12, 17, 4, -1, 3]},
                                "Segments": [54, -1, 12, 20, 10, -1, 0]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [54, -1, 5, 20, 4, -1, 11]},
  {"Taxon": "Portuguese",
  {"Taxon": "Friulian",
                                "Segments": [35, 34, 5, 17, 4, -1, 5]}
]},
{"Name": "Skin-Primary", "Data": [
                                 "Segments": [18, 23, 3, -1, -1, -1, 1, -1]},
  {"Taxon": "French",
  {"Taxon": "Italian",
                                "Segments": [18, -1, 14, 4, 5, 1, 1, 3]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [18, -1, 14, 56, 0, -1, -1, 38]},
  {"Taxon": "Portuguese",
                                "Segments": [18, -1, 14, 45, 0, -1, -1, 38]},
                                "Segments": [18, -1, 14, -1, -1, 1, 1, 39]},
  {"Taxon": "Catalan",
                                "Segments": [18, -1, 57, 0, -1, 1, -1, -1]}
  {"Taxon": "Walloon",
1},
{"Name": "Skin-Pellis", "Data": [
  {"Taxon": "Latin",
                                "Segments": [16, -1, 5, 30, 30, 5, 6]},
  {"Taxon": "French",
                                "Segments": [16, -1, 14, -1, -1, -1, -1]},
                                "Segments": [16, 34, 5, -1, 30, -1, -1]},
  {"Taxon": "Spanish",
  {"Taxon": "Italian",
                                "Segments": [16, -1, 12, 30, 30, 5, -1]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [16, -1, 12, -1, 30, 0, -1]},
  {"Taxon": "Portuguese",
                                "Segments": [16, -1, 5, -1, 30, 11, -1]},
  {"Taxon": "Catalan",
                                "Segments": [16, -1, 5, -1, 33, -1, -1]},
                                "Segments": [16, 12, -1, -1, -1, -1,]},
  {"Taxon": "Walloon",
  {"Taxon": "Friulian",
                                "Segments": [16, 34, 12, -1, 30, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [16, 34, 5, -1, 30, 5, -1]}
{"Name": "Meat-Primary", "Data": [
  {"Taxon": "Latin",
                                "Segments": [18, 3, 35, 1, 5, 6]},
  {"Taxon": "French"
                                "Segments": [20, 12, 54, -1, -1, -1]},
  {"Taxon": "Spanish"
                                "Segments": [18, 3, 37, 1, 5, -1]},
  {"Taxon": "Italian",
                                "Segments": [18, 3, 35, 1, 5, -1]},
```

```
{"Taxon": "PortugueseBrazil", "Segments": [18, 3, 54, 1, 0, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [18, 3, 37, 1, 11, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [18, 3, 35, 1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [10, 58, 35, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [42, 52, 35, -1, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [18, 3, 37, 1, 5, -1]}
]},
{"Name": "Blood-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [17, 3, 1, 59, -1, 0, 1, 5, 6]},
  {"Taxon": "French",
                                 "Segments": [17, 7, -1, -1, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [17, 3, 1, 60, -1, -1, 37, 5, -1]},
  {"Taxon": "Italian",
                                 "Segments": [17, 3, 1, 60, 23, 5, -1, -1, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [17, 9, -1, 60, -1, 0, -1, -1, -1]},
                                 "Segments": [17, 9, -1, 60, -1, 11, -1, -1, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [17, 3, 61, -1, -1, -1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [17, 24, -1, 60, -1, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [17, 3, 1, 18, -1, -1, -1, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [17, 11, 1, 56, -1, 5, -1, -1, -1]}
]},
{"Name": "Bone-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [-1, 14, 17, 17, 31, 6]},
  {"Taxon": "French",
                                 "Segments": [-1, 46, -1, 17, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [23, 5, -1, 17, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [-1, 46, 17, 17, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [-1, 14, -1, 17, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [-1, 14, -1, 17, 31, -1]},
 {"Taxon": "Catalan",
{"Taxon": "Walloon",
{"Taxon": "Friulian",
                                 "Segments": [-1, 46, -1, 17, -1, -1]},
                                 "Segments": [-1, 46, -1, 25, 12, -1]},
                                 "Segments": [23, 12, -1, 17, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [-1, 14, -1, 17, -1, -1]}
]},
{"Name": "Egg-Primary", "Data":
  {"Taxon": "Latin",
                                 "Segments": [-1, 47, 23, 31, 6]},
  {"Taxon": "French"
                                 "Segments": [-1, 48, 2, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [23, 5, 27, 14, -1]},
                                 "Segments": [23, 46, 28, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [-1, 14, 28, 31, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [-1, 14, 28, 31, -1]},
                                 "Segments": [-1, 46, 23, -1, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [-1, 31, -1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [-1, 55, 2, -1, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [-1, 14, 23, -1, -1]}
{"Name": "Horn-Primary", "Data": [
                                 "Segments": [18, -1, 14, 35, 1, 55]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                 "Segments": [18, -1, 46, 54, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [18, 23, 5, 37, 1, 14]},
  {"Taxon": "Italian",
                                 "Segments": [18, -1, 46, 35, 1, 14]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [18, -1, 14, 54, 1, 31]},
                                 "Segments": [18, -1, 14, 37, 1, 31]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [18, -1, 46, 35, 1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [18, -1, 14, 35, 1, -1]}
{"Name": "Horn-Cornua", "Data": [
                                 "Segments": [18, -1, 14, 35, 1, 31, 3]},
  {"Taxon": "Latin",
  {"Taxon": "French"
                                 "Segments": [18, -1, 46, 54, 1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [18, 23, 12, -1, 1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [18, 23, 3, 35, -1, -1, -1]}
{"Name": "Tail-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [18, 29, 45, 3]},
```

```
{"Taxon": "French",
                                   "Segments": [18, 62, -1, -1]},
  {"Taxon": "Spanish",
                                   "Segments": [18, 14, 30, 3]},
  {"Taxon": "Italian",
                                   "Segments": [18, 14, 45, 3]},
                                   "Segments": [18, 29, 45, 38]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                   "Segments": [18, 29, 45, 38]},
  {"Taxon": "Catalan",
                                   "Segments": [18, 31, -1, 3]},
                                   "Segments": [18, 46, 23, -1]},
  {"Taxon": "Walloon",
  {"Taxon": "Friulian",
                                   "Segments": [18, 46, 45, 12]},
  {"Taxon": "Romanian",
                                   "Segments": [42, 50, 45, 39]}
]},
{"Name": "Hair-Primary", "Data": [
  {"Taxon": "Latin",
                                   "Segments": [16, -1, 0, 30, 31, 17]},
  {"Taxon": "French"
                                   "Segments": [16, 23, 3, 30, -1, -1]},
  {"Taxon": "Spanish",
                                   "Segments": [16, -1, 5, 30, 14, -1]},
  {"Taxon": "Italian",
                                   "Segments": [16, -1, 5, 30, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                   "Segments": [16, -1, 5, 30, 31, -1]},
  {"Taxon": "Portuguese",
                                   "Segments": [16, -1, 11, 30, 31, -1]},
  {"Taxon": "Catalan",
                                   "Segments": [16, -1, 12, 30, -1, -1]},
  {"Taxon": "Friulian"
                                   "Segments": [16, -1, 44, 30, -1, -1]},
  {"Taxon": "Romanian",
                                   "Segments": [16, -1, 39, 37, -1, -1]}
]},
{"Name": "Hair-Capillus", "Data": [
                                   "Segments": [18, 3, 16, 0, 30, 30, 31, 17]},
  {"Taxon": "Latin",
 {"Taxon": "French",
{"Taxon": "Spanish",
{"Taxon": "Italian",
                                   "Segments": [20, 39, 28, 62, -1, -1, -1, -1]},
                                   "Segments": [18, 3, 27, 5, -1, 63, 14, -1]},
                                  "Segments": [18, 3, 16, 5, 30, 30, 14, -1]},
"Segments": [18, 3, 27, 5, -1, 30, 31, -1]},
  {"Taxon": "PortugueseBrazil",
                                  "Segments": [18, 38, 64, 5, -1, 30, 31, -1]},
"Segments": [18, 39, 27, 12, -1, 33, -1, -1]},
"Segments": [56, -1, 28, 12, -1, -1, -1, -1, -1]},
  {"Taxon": "Portuguese", {"Taxon": "Catalan",
  {"Taxon": "Walloon",
  {"Taxon": "Friulian",
                                   "Segments": [42, 3, 28, 5, 30, -1, -1, -1]}
]},
{"Name": "Ear-Primary", "Data": [
  {"Taxon": "Latin",
                                   "Segments": [29, 35, 0, -1, 18, 31, 30, 3]},
  {"Taxon": "French",
{"Taxon": "Spanish",
                                   "Segments": [46, 54, 21, -1, -1, -1, -1]},
                                   "Segments": [14, 37, 5, -1, 36, -1, -1, 3]},
  {"Taxon": "Italian",
                                   "Segments": [14, 35, 5, 18, 18, -1, 34, 3]},
  {"Taxon": "PortugueseBrazil",
                                  "Segments": [14, 37, 5, -1, -1, -1, 33, 38]},
                                   "Segments": [14, 37, 22, -1, -1, -1, 33, 38]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                   "Segments": [31, 37, 12, -1, -1, -1, 33, 39]},
  {"Taxon": "Walloon",
                                   "Segments": [46, 65, 66, -1, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                   "Segments": [14, 35, 44, -1, -1, -1, 30, 5]},
  {"Taxon": "Romanian",
                                   "Segments": [31, 35, 5, -1, 18, -1, -1, 5]}
1},
{"Name": "Eye-Primary", "Data": [
  {"Taxon": "Latin",
                                   "Segments": [-1, 14, -1, 18, 31, 30, 31, 17]},
  {"Taxon": "French",
                                   "Segments": [-1, 48, -1, 34, -1, -1, -1]},
  {"Taxon": "Spanish",
                                   "Segments": [-1, 14, -1, 36, -1, 14, -1, -1]},
  {"Taxon": "Italian",
                                   "Segments": [-1, 46, 18, 18, -1, 34, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                  "Segments": [-1, 14, -1, -1, -1, 33, 31, -1]},
  {"Taxon": "Portuguese",
                                   "Segments": [-1, 14, -1, -1, -1, 33, 31, -1]},
  {"Taxon": "Walloon",
                                   "Segments": [-1, 31, -1, 34, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                   "Segments": [28, 14, -1, -1, 30, 0, -1, -1]},
  {"Taxon": "Romanian",
                                   "Segments": [-1, 14, -1, 67, -1, -1, -1,]}
{"Name": "Nose-Primary", "Data": [
  {"Taxon": "Latin",
                                   "Segments": [1, 52, 17, 31, 17]},
  {"Taxon": "French"
                                   "Segments": [1, 5, -1, -1, -1]},
  {"Taxon": "Spanish",
                                   "Segments": [1, 3, 17, 14, -1]},
  {"Taxon": "Italian",
                                   "Segments": [1, 3, 17, 14, -1]},
  {"Taxon": "Catalan",
                                   "Segments": [1, 3, 17, -1, -1]},
```

```
{"Taxon": "Walloon",
                                 "Segments": [1, 5, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [1, 52, 17, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [1, 3, 17, -1, -1]}
1},
{"Name": "Nose-Nares", "Data": [
  {"Taxon": "Spanish",
                                 "Segments": [1, 3, 37, 0, 19, -1]},
  {"Taxon": "Italian",
                                 "Segments": [1, 3, 35, 0, 10, 5]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [1, 3, 37, 0, 17, -1]},
                                 "Segments": [1, 38, 37, 0, 20, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [1, 52, 35, 68, 17, -1]}
]},
{"Name": "Mouth-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [27, 31, 18, 18, 3]},
  {"Taxon": "French";
                                 "Segments": [27, 31, -1, 20, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [27, 14, -1, 18, 3]},
  {"Taxon": "Italian",
                                 "Segments": [27, 14, 18, 18, 3]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [27, 14, -1, 18, 38]},
  {"Taxon": "Portuguese",
                                 "Segments": [27, 14, -1, 18, 38]},
  {"Taxon": "Catalan",
                                 "Segments": [27, 14, -1, 18, 39]},
  {"Taxon": "Walloon",
                                 "Segments": [27, 46, -1, 18, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [27, 46, -1, 42, 12]},
  {"Taxon": "Romanian",
                                 "Segments": [27, 31, -1, 18, 39]}
]},
{"Name": "Mouth-Gula", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [60, 31, 30, 3]},
 {"Taxon": "French",
{"Taxon": "Spanish",
{"Taxon": "Italian",
                                 "Segments": [60, 48, 30, -1]},
                                 "Segments": [60, 14, 30, 3]},
                                 "Segments": [60, 14, 30, 3]},
                                 "Segments": [60, 14, 30, 39]},
  {"Taxon": "Catalan",
                                 "Segments": [60, 48, 34, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [60, 46, 30, 5]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [60, 31, 37, 39]}
]},
{"Name": "Tooth-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [45, -1, 5, 1, 4, 5, 6]},
  {"Taxon": "French",
{"Taxon": "Spanish",
                                 "Segments": [45, -1, 7, -1, -1, -1]},
                                 "Segments": [45, 34, 5, 1, 4, 5, -1]},
  {"Taxon": "Italian",
                                 "Segments": [45, -1, 12, 1, 4, 5, -1]},
                                 "Segments": [45, -1, 69, -1, 10, 0, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [45, -1, 69, -1, 4, 11, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Walloon",
                                 "Segments": [45, -1, 40, -1, -1, -1, -1]},
                                 "Segments": [45, -1, 0, 1, 4, -1, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [45, -1, 0, 1, 4, 5, -1]}
1},
{"Name": "Foot-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [16, -1, 5, -1, 45, 5, 6]},
  {"Taxon": "French",
                                 "Segments": [16, 34, 5, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [16, 34, 5, -1, -1, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [16, 34, 12, -1, 45, 5, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [16, -1, 12, -1, -1, -1, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [16, -1, 12, -1, -1, -1, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [16, -1, 12, 23, -1, -1, -1]},
                                 "Segments": [16, -1, 0, -1, -1, -1, -1]},
  {"Taxon": "Walloon",
  {"Taxon": "Friulian",
                                 "Segments": [16, -1, 53, -1, 4, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [16, 0, 5, -1, 32, -1, -1]}
{"Name": "Leg-Gamba", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [60, 3, 6, 27, 3]},
  {"Taxon": "French",
                                 "Segments": [70, 7, -1, 27, -1]},
  {"Taxon": "Italian"
                                 "Segments": [60, 3, 6, 27, 3]},
  {"Taxon": "Catalan",
                                 "Segments": [18, 3, 6, 27, 39]},
```

```
{"Taxon": "Walloon",
                                 "Segments": [56, 7, -1, 16, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [71, 3, 6, 27, 5]},
  {"Taxon": "Romanian",
                                 "Segments": [60, 3, 6, 27, 39]}
1},
{"Name": "Leg-Perna", "Data": [
                                 "Segments": [16, -1, 5, 35, 1, 3]},
  {"Taxon": "Latin",
  {"Taxon": "Spanish",
                                 "Segments": [16, 34, 5, 37, 1, 3]},
  {"Taxon": "Italian",
                                 "Segments": [16, -1, 12, 35, 1, 14]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [16, -1, 12, 54, 1, 38]},
                                 "Segments": [16, -1, 12, 37, 1, 38]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [16, -1, 12, 35, 1, 39]}
]},
{"Name": "Leg-Petiolus", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [16, 5, -1, 4, 0, 14, 30, 31, 17]},
  {"Taxon": "Spanish",
                                 "Segments": [16, 5, -1, 19, 0, 14, 30, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [16, 0, 4, 10, -1, 46, 30, 14, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [16, 12, -1, 18, -1, 46, 30, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [16, 0, -1, 10, 34, 14, 35, -1, -1]}
]},
{"Name": "Knee-Genuculum", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [60, -1, 5, 1, 0, -1, 18, 31, 30, 31, 6]},
  {"Taxon": "French",
                                 "Segments": [70, -1, 39, 1, 31, -1, -1, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [-1, -1, 0, 1, 14, -1, 36, 14, -1, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [56, -1, 0, 1, 46, 18, 18, -1, 34, 14, -1]},
 {"Taxon": "PortugueseBrazil",
                                 "Segments": [70, 31, 5, -1, -1, -1, -1, 33, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [70, 23, 38, -1, -1, -1, -1, -1, 33, 31, -1]},
 {"Taxon": "Catalan",
{"Taxon": "Walloon",
{"Taxon": "Friulian",
                                 "Segments": [70, -1, 39, 1, 14, -1, -1, -1, 33, -1, -1]},
                                 "Segments": [13, -1, -1, 13, 46, -1, -1, -1, -1, -1]},
                                 "Segments": [56, -1, 5, 1, 14, -1, -1, -1, 30, 0, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [56, -1, 5, 1, 31, 1, 67, -1, -1, -1, -1]}
]},
{"Name": "Hand-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [6, 3, 1, 31, 6]},
  {"Taxon": "French",
{"Taxon": "Spanish",
                                 "Segments": [6, 40, -1, -1, -1]},
                                 "Segments": [6, 3, 1, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [6, 3, 1, 14, -1]},
                                 "Segments": [6, 41, -1, -1, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [6, 41, -1, -1, -1]},
                                 "Segments": [6, 40, -1, -1, -1]},
  {"Taxon": "Walloon",
  {"Taxon": "Friulian",
                                 "Segments": [6, 3, 1, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [6, 11, 1, 39, -1]}
]},
{"Name": "Wing-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [52, 30, 3]},
  {"Taxon": "French",
                                 "Segments": [5, 30, -1]},
                                 "Segments": [3, 30, 3]},
  {"Taxon": "Spanish",
  {"Taxon": "Italian",
                                 "Segments": [3, 30, 3]},
                                 "Segments": [3, -1, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [3, -1, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [3, 30, 39]},
  {"Taxon": "Catalan",
  {"Taxon": "Walloon",
                                 "Segments": [5, 30, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [3, 30, 5]}
{"Name": "Neck-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [18, -1, 14, 30, 30, 31, 6]},
  {"Taxon": "French"
                                 "Segments": [18, -1, 31, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [18, 23, 5, -1, 63, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [18, -1, 46, 30, 30, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [18, -1, 46, -1, 30, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [18, -1, 46, -1, 30, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [18, -1, 46, -1, 33, -1, -1]},
```

```
"Segments": [18, -1, 14, -1, -1, -1, -1]},
  {"Taxon": "Walloon",
  {"Taxon": "Friulian",
                                 "Segments": [18, 23, 12, -1, 30, -1, -1]}
]},
{"Name": "Back-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [45, -1, 14, 35, 17, 31, 6]},
  {"Taxon": "French",
                                 "Segments": [45, -1, 14, -1, -1, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [45, -1, 46, 17, 17, 14, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [45, -1, 14, -1, 17, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [45, -1, 14, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [45, 23, 12, -1, 17, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [45, -1, 14, -1, -1, -1, -1]}
]},
{"Name": "Back-Spatula", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [-1, 17, 16, 3, 4, 31, 30, 3]},
  {"Taxon": "French",
                                 "Segments": [5, -1, 16, 14, -1, -1, 30, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [5, 17, 16, 3, 30, -1, 45, 3]},
  {"Taxon": "Italian",
                                 "Segments": [-1, 17, 16, 3, 30, -1, 30, 3]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [0, 20, 16, 3, 45, 23, -1, 38]},
  {"Taxon": "Portuguese",
                                 "Segments": [0, 20, 16, 3, 45, 23, -1, 38]},
  {"Taxon": "Catalan",
                                 "Segments": [39, 17, 16, 3, 33, -1, 33, 39]},
  {"Taxon": "Walloon",
                                 "Segments": [-1, 17, 16, 3, -1, -1, 30, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [-1, 17, 16, 3, -1, -1, 30, 5]},
  {"Taxon": "Romanian",
                                 "Segments": [-1, 17, 16, 3, 4, -1, -1, 5]}
]},
{"Name": "Breast-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [17, 0, 1, 31, 17]},
 {"Taxon": "French", {"Taxon": "Spanish",
                                 "Segments": [17, 40, -1, -1, -1]},
                                 "Segments": [17, 5, 1, 14, -1]},
                                 "Segments": [17, 5, 1, 14, -1]},
"Segments": [17, 21, -1, 31, -1]},
  {"Taxon": "Italian",
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [17, 22, -1, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [17, 0, -1, -1, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [17, 12, 1, -1, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [17, 3, 1, -1, -1]}
]},
{"Name": "Breast-Pectus", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [16, -1, 5, 18, 4, 31, 17]},
  {"Taxon": "French",
                                 "Segments": [16, -1, 0, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [16, -1, 5, -1, 10, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [16, -1, 12, 4, 4, 14, -1]},
                                "Segments": [16, -1, 21, -1, 4, 31, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [16, -1, 22, -1, 4, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [16, -1, 0, -1, 4, -1, -1]},
  {"Taxon": "Catalan",
  {"Taxon": "Friulian",
                                 "Segments": [16, -1, 12, -1, 4, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [16, 34, 5, 16, 4, -1, -1]}
1},
{"Name": "Breast-Pectorina", "Data": [
  {"Taxon": "French",
                                 "Segments": [16, 23, 3, 4, 54, 0, 1]},
  {"Taxon": "Walloon",
                                 "Segments": [16, 23, 12, 4, 35, 0, 1]}
]},
{"Name": "Liver-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [2, -1, 53, 18, 52, 4, 31, 6]},
  {"Taxon": "French",
                                 "Segments": [2, 23, 3, -1, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [-1, -1, 0, 60, 3, 45, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [2, -1, 5, 60, 3, 4, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [2, -1, 0, 60, 38, 45, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [2, -1, 0, 72, 38, 73, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [2, -1, 5, 56, 39, -1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [2, -1, 48, -1, -1, 4, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [2, -1, 0, -1, 52, 4, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [2, -1, 0, 18, 3, 4, -1, -1]}
```

```
]},
{"Name": "Star-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [-1, 17, 4, -1, 44, 30, 30, 3]},
  {"Taxon": "French",
                                 "Segments": [5, -1, 4, 23, 3, -1, 30, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [5, 17, 4, 37, 5, -1, 63, 3]},
  {"Taxon": "Italian",
                                 "Segments": [-1, 17, 4, -1, 5, 30, 30, 3]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [0, 17, 4, 37, 5, -1, 30, 38]},
                                 "Segments": [11, 20, 4, 37, 5, -1, 30, 38]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [39, 17, 4, -1, 12, -1, 30, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [-1, 17, 4, -1, 48, -1, 30, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [-1, 17, 4, -1, 12, -1, 30, 5]},
  {"Taxon": "Romanian",
                                 "Segments": [-1, 17, 4, -1, 74, -1, -1, -1]}
]},
{"Name": "Water-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [3, -1, 75, -1, 3]},
  {"Taxon": "French"
                                 "Segments": [14, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [3, -1, 60, 23, 3]},
  {"Taxon": "Italian",
                                 "Segments": [3, 18, 18, 23, 3]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [3, -1, 60, 23, 38]},
  {"Taxon": "Portuguese",
                                 "Segments": [3, -1, 60, 23, 38]},
  {"Taxon": "Catalan",
                                 "Segments": [76, -1, 72, 23, 39]},
                                 "Segments": [12, -1, -1, 23, -1]},
  {"Taxon": "Walloon",
  ("Taxon": "Friulian",
                                 "Segments": [3, -1, 60, -1, 5]},
  {"Taxon": "Romanian",
                                 "Segments": [3, -1, 16, -1, 39]}
1},
{"Name": "Rain-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [16, 30, 31, -1, 23, 0, 3]},
  {"Taxon": "French",
{"Taxon": "Spanish",
                                 "Segments": [16, 30, 77, -1, -1, 0, -1]},
                                 "Segments": [63, -1, 31, -1, 27, 34, 3]},
  {"Taxon": "Italian",
                                 "Segments": [16, 34, 46, 45, 56, -1, 3]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [20, -1, 31, -1, 28, -1, 38]},
                                 "Segments": [20, -1, 31, -1, 28, -1, 38]},
  {"Taxon": "Portuguese",
                                 "Segments": [16, 30, 31, -1, 70, -1, 39]},
  {"Taxon": "Catalan",
                                 "Segments": [16, 30, 12, -1, 2, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [16, 30, 14, -1, -1, 34, 5]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [16, 30, 50, -1, -1, 34, 5]}
]},
{"Name": "Salt-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [17, 3, 30, 5, 6]},
  {"Taxon": "French",
                                 "Segments": [17, 12, 30, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [17, 3, 30, -1, -1]},
                                 "Segments": [17, 3, 30, 5, -1]},
  {"Taxon": "Italian",
  {"Taxon": "PortugueseBrazil",
                                "Segments": [17, 3, 23, -1, -1]},
                                 "Segments": [17, 3, 30, -1, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [17, 3, 30, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [17, 5, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [17, 52, 30, -1, -1]},
                                 "Segments": [17, 3, 35, 5, -1]}
  {"Taxon": "Romanian",
1},
{"Name": "Stone-Primary", "Data": [
                                 "Segments": [17, 3, 18, 17, 31, 6]},
  {"Taxon": "Latin",
  {"Taxon": "Italian",
                                 "Segments": [17, 3, 17, 17, 14, -1]},
                                 "Segments": [17, 21, -1, 20, 31, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [17, 22, -1, 20, 31, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [17, 3, -1, 17, -1, -1]}
]},
{"Name": "Stone-Petra", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [16, -1, 5, 4, 35, 3]},
  {"Taxon": "French"
                                 "Segments": [16, 34, 12, -1, 54, -1]},
  {"Taxon": "Spanish"
                                 "Segments": [16, 34, 5, 45, 37, 3]},
  {"Taxon": "Italian",
                                 "Segments": [16, 34, 12, 4, 35, 3]},
```

```
{"Taxon": "PortugueseBrazil", "Segments": [16, -1, 5, 45, 37, 38]},
  {"Taxon": "Portuguese",
                                 "Segments": [16, -1, 12, 73, 37, 38]},
  {"Taxon": "Catalan",
                                 "Segments": [16, -1, 5, 73, 37, 39]},
  {"Taxon": "Walloon",
                                 "Segments": [16, -1, 0, -1, 35, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [16, 34, 5, -1, 35, 5]},
  {"Taxon": "Romanian",
                                 "Segments": [16, 34, 3, 4, 37, 39]}
]},
{"Name": "Sand-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [25, 3, 35, 44, 1, 58]},
  {"Taxon": "Spanish",
                                 "Segments": [-1, 3, 37, 5, 1, 3]},
  {"Taxon": "Italian",
                                 "Segments": [-1, -1, 35, 5, 1, 3]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [-1, 3, 37, 21, -1, 38]},
                                 "Segments": [-1, 38, 37, 22, -1, 38]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [-1, 39, 37, 5, 1, 39]},
  {"Taxon": "Walloon".
                                 "Segments": [-1, 3, 35, 12, 1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [-1, -1, 35, 12, 1, 5]},
  {"Taxon": "Romanian",
                                 "Segments": [-1, 3, 35, 0, 1, 39]}
{"Name": "Sand-Sabulum", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [17, 3, 27, 31, 30, 31, 6]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [17, 76, 64, -1, 37, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [17, 76, 64, -1, 37, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [17, 14, -1, -1, 35, 39, -1]}
]},
{"Name": "Sand-Sabulo", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [17, 3, -1, 27, 31, 30, 47, 1, 5, 6]},
  {"Taxon": "French",
                                 "Segments": [17, 58, -1, 27, -1, 30, -1, -1, -1, -1]},
 {"Taxon": "Italian", {"Taxon": "Walloon",
                                 "Segments": [17, 3, 27, 27, -1, 34, 14, 1, 5, -1]},
                                 "Segments": [17, 58, -1, 28, -1, 34, 24, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [17, 3, -1, 28, 3, 30, 46, 1, -1, -1]}
]},
{"Name": "Wind-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [23, -1, 5, 1, 4, 31, 6]},
  {"Taxon": "French"
                                 "Segments": [28, -1, 7, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [27, 34, 5, 1, 4, 14, -1]},
                                 "Segments": [28, -1, 12, 1, 4, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [28, -1, 69, -1, 4, 31, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [28, -1, 69, -1, 4, 31, -1]},
                                 "Segments": [27, -1, 5, 1, -1, -1, -1]},
  {"Taxon": "Catalan",
  {"Taxon": "Walloon",
                                 "Segments": [28, -1, 40, -1, -1, -1, -1]},
                                 "Segments": [28, -1, 0, 1, 4, -1, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [28, -1, 11, 1, 4, -1, -1]}
{"Name": "Smoke-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [2, 55, 6, 31, 17]},
  {"Taxon": "Spanish",
                                 "Segments": [-1, 31, 6, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [2, 31, 6, 14, -1]},
                                "Segments": [2, 31, 6, 31, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [2, 31, 6, 31, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [2, 31, 6, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [2, 31, 6, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [2, 31, 6, -1, -1]}
{"Name": "Fire-Focus", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [2, -1, 14, 18, 31, 6]},
  {"Taxon": "French"
                                 "Segments": [2, -1, 62, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [2, 23, 5, 60, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [2, 23, 46, 18, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [2, -1, 14, 60, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [2, -1, 14, 72, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [2, -1, 46, 18, -1, -1]},
```

```
{"Taxon": "Walloon",
                                "Segments": [2, -1, 48, -1, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [2, -1, 55, 18, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [2, -1, 14, 18, -1, -1]}
1},
{"Name": "Ash-Primary", "Data": [
                                 "Segments": [18, 0, 1, 5, -1, 35, 5, 6]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                "Segments": [17, 7, -1, -1, 45, 54, -1, -1]},
  {"Taxon": "Italian",
                                "Segments": [10, 5, 1, 5, -1, 35, 5, -1]},
                                "Segments": [17, 12, 1, -1, 45, 35, 39, -1]},
  {"Taxon": "Catalan",
  {"Taxon": "Walloon",
                                "Segments": [17, 40, -1, -1, 4, -1, -1, -1]}
]},
{"Name": "Ash-Cinisia", "Data": [
  {"Taxon": "Spanish",
                                 "Segments": [19, 5, 1, 0, 19, 3]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [17, 8, -1, -1, 32, 38]},
                                "Segments": [17, 8, -1, -1, 32, 38]},
  {"Taxon": "Portuguese",
  {"Taxon": "Friulian",
                                "Segments": [10, 0, 1, 0, 17, 12]},
  {"Taxon": "Romanian",
                                "Segments": [10, 5, 1, 31, 20, 39]}
{"Name": "Night-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [1, -1, 14, 42, 4, 5, 6]},
  {"Taxon": "French",
                                "Segments": [1, 77, 0, -1, -1, -1]},
  {"Taxon": "Spanish",
                                "Segments": [1, -1, 14, -1, 10, 5, -1]},
  {"Taxon": "Italian",
                                "Segments": [1, -1, 46, 4, 4, 5, -1]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [1, -1, 57, -1, 4, 11, -1]},
  {"Taxon": "Portuguese",
                                "Segments": [1, -1, 57, -1, 4, 11, -1]},
  {"Taxon": "Catalan",
                                "Segments": [1, -1, 0, -1, 4, -1, -1]},
  {"Taxon": "Walloon",
                                "Segments": [1, -1, 78, -1, 4, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [13, -1, 46, -1, 4, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [1, -1, 50, 16, 4, 5, -1]}
]},
{"Name": "Name-Nomen", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [1, 47, 6, 5, 1]},
  {"Taxon": "French",
                                "Segments": [1, 24, -1, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [1, 47, 6, 5, -1]},
                                "Segments": [1, 14, 6, 0, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [1, 14, 6, 11, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [1, 46, 6, -1, -1]},
  {"Taxon": "Catalan",
  {"Taxon": "Walloon",
                                "Segments": [1, 24, -1, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [1, 46, 1, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [1, 31, 6, 5, -1]}
{"Name": "Name-Nominem", "Data": [
                                 "Segments": [1, 47, 6, 0, 1, -1, 5, 6]},
  {"Taxon": "Latin",
  {"Taxon": "Spanish",
                                "Segments": [1, 14, 6, -1, 27, 37, 5, -1]}
1},
{"Name": "Tongue-Primary", "Data": [
  {"Taxon": "Latin",
                                "Segments": [30, 0, 1, 59, -1, 3]},
  {"Taxon": "French",
                                "Segments": [30, 7, -1, 60, -1, -1]},
                                "Segments": [30, 5, 1, 60, 23, 3]},
  {"Taxon": "Spanish",
  {"Taxon": "Italian",
                                "Segments": [30, 0, 1, 60, 23, 3]},
                                "Segments": [30, 8, -1, 60, 23, 38]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                "Segments": [30, 8, -1, 60, 23, 38]},
  {"Taxon": "Catalan",
                                "Segments": [33, 12, 61, 60, 23, 39]},
  {"Taxon": "Walloon",
                                "Segments": [30, 40, -1, -1, 28, -1]},
  {"Taxon": "Friulian",
                                "Segments": [30, 12, 1, 60, -1, 5]},
  {"Taxon": "Romanian",
                                "Segments": [30, 0, 6, 27, -1, 39]}
{"Name": "I-Primary", "Data": [
  {"Taxon": "Latin",
                                "Segments": [-1, 5, 60, 47]},
  {"Taxon": "French"
                                 "Segments": [70, 39, -1, -1]},
  {"Taxon": "Spanish",
                                "Segments": [63, -1, -1, 14]},
```

```
{"Taxon": "Italian",
                                 "Segments": [-1, 0, -1, 14]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [-1, 5, -1, 23]},
  {"Taxon": "Portuguese",
                                 "Segments": [-1, 5, -1, 23]},
  {"Taxon": "Catalan",
                                 "Segments": [70, -1, -1, 46]},
  {"Taxon": "Walloon",
                                 "Segments": [56, 0, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [34, -1, -1, 14]},
  {"Taxon": "Romanian",
                                 "Segments": [34, 5, -1, 23]}
1},
{"Name": "YouPlural-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [23, 47, -1, 17]},
  {"Taxon": "French".
                                 "Segments": [28, 31, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [27, 14, -1, 17]},
  {"Taxon": "Italian",
                                 "Segments": [28, 14, 0, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [28, 49, 17, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [28, 14, -1, 20]},
  {"Taxon": "Catalan",
                                 "Segments": [27, 31, -1, 17]},
  {"Taxon": "Walloon"
                                 "Segments": [28, 14, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [28, 47, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [28, 57, -1, -1]}
{"Name": "YouSingular-Primary", "Data": [
                                 "Segments": [4, 55]},
  {"Taxon": "Latin",
 {"Taxon": "French",
{"Taxon": "Spanish",
{"Taxon": "Italian",
                                 "Segments": [4, 78]},
                                 "Segments": [4, 31]},
                                 "Segments": [4, 31]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [4, 31]},
  {"Taxon": "Portuguese",
                                 "Segments": [4, 31]},
 {"Taxon": "Catalan", {"Taxon": "Walloon",
                                 "Segments": [4, 31]},
                                 "Segments": [4, 0]},
                                 "Segments": [4, 31]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [4, 31]}
]},
{"Name": "YouSingular-VostramMercedem", "Data": [
                                 "Segments": [-1, 31, 17, 4, 5, 45]},
  {"Taxon": "Spanish",
                                 "Segments": [28, 14, 17, -1, 5, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [28, 46, 17, -1, 5, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [28, 14, 17, 4, 5, -1]}
]},
{"Name": "ToDrink-Primary", "Data": [
                                 "Segments": [27, -1, 0, 27, 5, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                 "Segments": [27, 23, 58, -1, -1, 54, -1]},
                                 "Segments": [27, -1, 5, 27, 5, 37, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [27, -1, 5, -1, -1, 35, 5]},
  {"Taxon": "Italian",
  {"Taxon": "PortugueseBrazil", "Segments": [27, -1, 5, 27, 5, 54, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [27, -1, 11, 64, 5, 37, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [27, -1, 12, 23, -1, 37, 39]},
  {"Taxon": "Walloon",
                                 "Segments": [27, -1, 62, -1, -1, 54, -1]},
                                 "Segments": [27, -1, 5, 28, 0, -1, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [27, -1, 74, -1, -1, -1, -1]}
]},
{"Name": "ToEat-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [18, 14, 6, 5, 45, 5, 35, 5]},
  {"Taxon": "Spanish",
                                 "Segments": [18, 14, 6, 5, -1, -1, 37, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [18, 14, 6, 5, -1, -1, -1]},
                                 "Segments": [18, 31, 6, -1, -1, 5, 37, -1]}
  {"Taxon": "Portuguese",
]},
{"Name": "ToEat-Manducare", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [6, 3, 1, 45, 31, 18, 52, 35, 5]},
  {"Taxon": "French"
                                 "Segments": [6, 7, -1, 70, -1, -1, 5, -1, -1]},
  {"Taxon": "Catalan"
                                 "Segments": [6, 39, 13, 70, -1, -1, 3, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [6, 3, 13, -1, -1, -1, 0, -1, -1]},
```

```
"Segments": [6, 3, 1, 71, -1, -1, 52, -1, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                "Segments": [6, 11, 1, -1, -1, 18, 3, -1, -1]}
]},
{"Name": "ToBite-Primary", "Data": [
  {"Taxon": "Latin",
                                "Segments": [6, -1, 14, 35, 45, 44, 35, 5]},
  {"Taxon": "French",
                                "Segments": [6, -1, 46, 54, 45, -1, 54, -1]},
  {"Taxon": "Spanish",
                                "Segments": [6, -1, 14, 37, 45, 5, 37, -1]},
  {"Taxon": "Italian",
                                "Segments": [6, -1, 46, 35, 45, 5, 35, 5]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [6, -1, 14, 54, 45, 5, 54, -1]},
                                "Segments": [6, -1, 31, 37, 73, 5, 37, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Friulian",
                                "Segments": [6, 23, 3, 35, 45, 0, -1, -1]}
]},
{"Name": "ToBite-Morsicare", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [6, 14, 35, 17, 0, 18, 52, 35, 5]},
  {"Taxon": "Spanish",
                                "Segments": [6, 14, -1, 17, -1, 18, 3, 37, -1]},
  {"Taxon": "Italian",
                                "Segments": [6, 14, 35, 17, 0, 18, 3, 35, 5]},
                                "Segments": [6, 31, -1, 17, 39, 60, 3, -1, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                "Segments": [6, 31, -1, 17, 39, 60, 3, 35, -1]},
  {"Taxon": "Catalan",
                                "Segments": [6, 31, -1, 17, 39, 72, 3, -1, -1]},
  {"Taxon": "Friulian"
                                "Segments": [6, 14, 35, 17, 5, 52, -1, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [6, 31, 35, 17, 5, 18, 3, -1, -1]}
]},
{"Name": "ToSuck-Primary", "Data": [
  {"Taxon": "French",
                                 "Segments": [17, 78, -1, 17, -1, 5, -1, -1]},
 {"Taxon": "Italian",
{"Taxon": "PortugueseBrazil",
                                 "Segments": [17, 31, 18, 18, 34, 3, 35, 5]},
                                "Segments": [20, 31, -1, 20, 3, 54, -1, -1]},
                                "Segments": [20, 31, -1, 20, 3, 37, -1, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Walloon",
                                "Segments": [17, 78, -1, 17, -1, 0, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [42, 31, -1, 42, -1, 52, -1, -1]}
]},
{"Name": "ToSuck-Sugere", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [17, 55, -1, 60, 5, 35, 5]},
  {"Taxon": "Italian",
                                "Segments": [17, 31, 45, 56, 5, 35, 5]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [17, 31, -1, 60, 3, 54, -1]},
                                "Segments": [17, 31, -1, 60, 3, 37, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Romanian",
                                 "Segments": [17, 31, -1, 56, -1, 5, -1]}
]},
{"Name": "ToBlow-Primary", "Data": [
                                "Segments": [17, 31, 2, 2, 30, 52, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                "Segments": [17, 31, -1, 2, 30, 5, -1, -1]},
  {"Taxon": "Italian",
                                "Segments": [17, 14, 2, 2, 34, 3, 35, 5]},
  {"Taxon": "Walloon",
                                "Segments": [17, 46, -1, 2, 30, 5, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [17, 14, -1, 2, 30, 52, -1, -1]},
                                "Segments": [17, 31, -1, 2, 30, 3, -1, -1]}
  {"Taxon": "Romanian",
1},
{"Name": "ToLaugh-Primary", "Data": [
  {"Taxon": "Latin",
                                "Segments": [35, 53, -1, 45, 44, 35, 5]},
  {"Taxon": "French",
                                "Segments": [54, 0, -1, -1, -1, 54, -1]},
                                "Segments": [35, 5, -1, -1, 0, 37, -1]},
  {"Taxon": "Spanish",
                                "Segments": [35, 0, -1, 45, 5, 35, 5]},
  {"Taxon": "Italian",
                                "Segments": [54, 0, -1, -1, -1, 54, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                "Segments": [54, 0, -1, -1, -1, 37, -1]},
  {"Taxon": "Catalan",
                                "Segments": [35, 0, 23, -1, -1, 37, 39]},
                                "Segments": [35, 0, -1, -1, -1, 35, -1]},
  {"Taxon": "Walloon",
  {"Taxon": "Friulian",
                                "Segments": [35, 0, -1, 45, 0, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [37, 11, -1, 45, 5, -1, -1]}
{"Name": "ToSee-Primary", "Data": [
  {"Taxon": "Latin",
                                "Segments": [23, -1, 0, 45, 44, 35, 5]},
  {"Taxon": "French"
                                "Segments": [28, 23, 3, -1, -1, 54, -1]},
  {"Taxon": "Spanish",
                                "Segments": [27, -1, -1, 5, 37, -1]},
```

```
{"Taxon": "Italian",
                                 "Segments": [28, -1, 5, 45, 5, 35, 5]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [28, -1, -1, -1, 5, 54, -1]},
                                 "Segments": [28, -1, -1, -1, 5, 37, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [27, -1, 12, 23, -1, 37, 39]},
  {"Taxon": "Walloon",
                                 "Segments": [28, -1, 66, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [28, 34, 14, 45, 0, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [28, -1, 5, 45, 74, -1, -1]}
1},
{"Name": "ToHear-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [29, -1, 45, 53, 35, 5]},
  {"Taxon": "French",
                                 "Segments": [31, -1, -1, 0, 54, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [14, -1, -1, 0, 37, -1]},
  {"Taxon": "Italian",
                                 "Segments": [31, -1, 45, 0, 35, 5]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [14, 23, 28, 0, 54, -1]},
                                 "Segments": [14, 23, 28, 0, 37, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [31, -1, -1, 0, -1, -1]},
  {"Taxon": "Walloon"
                                 "Segments": [49, -1, 0, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [31, 30, 45, 53, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [29, -1, 32, 0, -1, -1]}
]},
{"Name": "ToKnow-Primary", "Data": [
                                 "Segments": [17, 18, 53, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "Romanian",
                                 "Segments": [20, 4, 0, -1, -1]}
]},
{"Name": "ToKnow-Sapere", "Data": [
                                 "Segments": [17, 3, 16, -1, 5, 35, 5]},
"Segments": [17, 3, 28, 23, 3, 54, -1]},
  {"Taxon": "Latin",
 {"Taxon": "French", {"Taxon": "Spanish",
                                 "Segments": [17, 3, 27, -1, 5, 37, -1]},
                                 "Segments": [17, 3, 16, -1, 5, 35, 5]},
"Segments": [17, 3, 27, -1, 5, 54, -1]},
  {"Taxon": "Italian",
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [17, 38, 27, -1, 5, 37, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [17, 39, 64, -1, 12, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [17, 3, 28, -1, 62, 35, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [17, 3, 28, -1, 44, -1, -1]}
]},
{"Name": "ToKnow-Cognoscere", "Data": [
                                 "Segments": [18, 14, 60, 1, 47, 17, 18, 5, 35, 5]},
  {"Taxon": "Latin",
                                 "Segments": [18, 46, -1, 1, 12, -1, 4, -1, 54, -1]},
  {"Taxon": "French",
  {"Taxon": "Spanish",
                                 "Segments": [18, 14, -1, 1, 14, 19, -1, 5, 37, -1]},
                                 "Segments": [18, 14, -1, 1, 14, 20, 20, 5, 35, 5]},
  {"Taxon": "Italian",
                                 "Segments": [18, 14, -1, 13, 5, 17, -1, 5, 54, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [18, 31, -1, 13, 11, 17, -1, 5, 37, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [18, 31, -1, 1, 12, 20, -1, 39, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [18, 0, -1, 1, 46, 25, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [18, 14, -1, 13, 46, 17, -1, 0, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [18, 31, -1, 1, 50, 20, 4, 5, -1, -1]}
{"Name": "ToHit-Primary", "Data": [
                                 "Segments": [16, 31, 30, 17, 52, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                 "Segments": [16, 31, -1, 17, 5, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [16, 31, -1, 36, 3, 37, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [16, 31, -1, 20, 3, 54, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [16, 31, -1, 20, 3, 37, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [16, 31, 30, 17, 52, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [16, 31, 30, 17, 3, -1, -1]}
]},
{"Name": "ToCome-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [23, 5, 1, 53, 35, 5]},
  {"Taxon": "French"
                                 "Segments": [28, 39, 1, 0, 54, -1]},
  {"Taxon": "Spanish"
                                 "Segments": [27, 5, 1, 0, 37, -1]},
  {"Taxon": "Italian",
                                 "Segments": [28, 5, 1, 0, 35, 5]},
```

```
{"Taxon": "PortugueseBrazil", "Segments": [28, -1, -1, 0, 54, -1]},
                                "Segments": [28, -1, -1, 0, 37, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                "Segments": [27, 39, 1, 0, -1, -1]},
  {"Taxon": "Walloon",
                                "Segments": [28, 0, 1, 0, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [28, 0, 13, 53, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [28, 5, 1, 0, -1, -1]}
]},
{"Name": "ToStand-Primary", "Data": [
  {"Taxon": "Latin",
                                "Segments": [-1, 17, 4, 52, 35, 5]},
  {"Taxon": "French",
                                "Segments": [12, -1, 4, -1, 54, -1]},
  {"Taxon": "Spanish",
                                "Segments": [5, 17, 4, 3, 37, -1]},
  {"Taxon": "Italian",
                                "Segments": [-1, 17, 4, 3, 35, 5]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [11, 20, 4, 3, 37, -1]},
                                "Segments": [11, 20, 4, 3, 37, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                "Segments": [39, 17, 4, 3, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [-1, 17, 4, 52, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [-1, 17, 4, 3, -1, -1]}
{"Name": "ToStand-Levare", "Data": [
 {"Taxon": "Latin",
                                 "Segments": [30, 5, 28, 52, 35, 5]},
  {"Taxon": "French",
                                 "Segments": [30, 39, 28, 5, -1, -1]},
  {"Taxon": "Spanish",
                                "Segments": [63, 5, 27, 3, 37, -1]},
  {"Taxon": "Italian",
                                "Segments": [30, 5, 28, 3, 35, 5]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [30, 5, 28, 3, 54, -1]},
  {"Taxon": "Portuguese",
                                "Segments": [30, 11, 28, 3, 37, -1]},
  {"Taxon": "Catalan",
                                "Segments": [33, 39, 27, 3, -1, -1]},
  {"Taxon": "Walloon",
                                "Segments": [30, 12, 28, 5, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [30, 5, 28, 52, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [30, -1, 31, 3, -1, -1]}
]},
{"Name": "ToStand-Altiare", "Data": [
  {"Taxon": "French",
                                 "Segments": [14, -1, 17, 5, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [3, 30, 19, 3, 37, -1]},
  {"Taxon": "Italian",
                                "Segments": [3, 30, 79, 3, 35, 5]},
                                "Segments": [3, 80, 17, 3, -1, -1]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [3, 80, 17, 3, 37, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [39, 30, 17, 3, -1, -1]},
  {"Taxon": "Catalan",
  {"Taxon": "Walloon",
                                 "Segments": [14, -1, 17, 0, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [3, 30, 10, 52, -1, -1]}
]},
{"Name": "ToFall-Primary", "Data": [
                                "Segments": [18, -1, 3, 45, 5, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                "Segments": [20, 23, 3, -1, -1, 54, -1]},
  {"Taxon": "Spanish",
                                "Segments": [18, -1, 3, -1, 5, 37, -1]},
                                "Segments": [18, -1, 3, 45, 5, 35, 5]},
  {"Taxon": "Italian",
                                "Segments": [18, -1, 38, -1, 0, 37, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                "Segments": [18, -1, 38, -1, 0, 37, -1]},
  {"Taxon": "Catalan",
                                "Segments": [18, -1, 3, 23, -1, 35, 39]},
  {"Taxon": "Walloon",
                                "Segments": [10, -1, 12, -1, -1, 35, -1]},
  {"Taxon": "Friulian",
                                "Segments": [42, -1, 3, 45, 5, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [18, -1, 39, 45, 74, -1, -1]}
{"Name": "ToGive-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [45, 3, 35, 5]},
  {"Taxon": "Spanish",
                                "Segments": [45, 3, 37, -1]},
  {"Taxon": "Italian",
                                "Segments": [45, 3, 35, 5]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [45, 3, 54, -1]},
  {"Taxon": "Portuguese",
                                "Segments": [45, 3, 37, -1]},
  {"Taxon": "Catalan",
                                "Segments": [45, 3, 35, -1]},
  {"Taxon": "Friulian"
                                "Segments": [45, 52, -1, -1]},
  {"Taxon": "Romanian",
                                "Segments": [45, 3, -1, -1]}
```

```
]},
{"Name": "ToGive-Donare", "Data": [
                                 "Segments": [45, 14, 1, 52, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                 "Segments": [45, 46, 1, 5, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [45, 14, 1, 3, 37, -1]},
  {"Taxon": "Italian",
                                 "Segments": [45, 14, 1, 3, 35, 5]},
                                 "Segments": [45, 14, -1, 3, -1, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [45, 31, -1, 3, 37, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [45, 31, 1, 3, -1, -1]},
  {"Taxon": "Walloon".
                                 "Segments": [45, 0, 1, 5, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [45, 14, 1, 52, -1, -1]}
]},
{"Name": "ToTie-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [30, 0, 60, 52, 35, 5]},
  {"Taxon": "French",
                                 "Segments": [30, 34, -1, 5, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [30, 5, 60, 3, 35, 5]},
  {"Taxon": "Catalan",
                                 "Segments": [33, 0, 72, 3, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [30, 49, 0, -1, -1, -1]},
                                 "Segments": [30, 5, -1, 52, -1, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [30, 5, 60, 3, -1, -1]}
]},
{"Name": "ToTie-Aptare", "Data": [
                                  "Segments": [3, 16, 4, 52, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "Spanish",
{"Taxon": "PortugueseBrazil",
                                 "Segments": [3, -1, 4, 3, 37, -1]},
                                 "Segments": [38, -1, 4, 3, 37, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [38, -1, 4, 3, 37, -1]}
]},
{"Name": "ToSay-Primary", "Data": [
                                 "Segments": [45, 53, 18, 5, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "French", {"Taxon": "Spanish",
                                 "Segments": [45, 0, -1, -1, 54, -1]},
                                 "Segments": [45, 5, 19, 0, 37, -1]},
                                 "Segments": [45, 0, -1, -1, 35, 5]},
"Segments": [45, 0, 32, 5, 37, -1]},
  {"Taxon": "Italian",
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [45, 0, 32, 5, 37, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [45, 0, -1, -1, -1, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [45, 0, -1, -1, 35, -1]},
  {"Taxon": "Walloon",
  {"Taxon": "Friulian",
                                 "Segments": [45, 53, -1, -1, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [32, 0, 10, 5, -1, -1]}
]},
{"Name": "ToSay-Exponere", "Data": [
                                 "Segments": [5, 18, 17, 16, 47, 1, 5, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "Italian",
                                 "Segments": [5, -1, 17, 16, 14, 35, -1, 35, 5]},
  {"Taxon": "Romanian",
                                 "Segments": [-1, -1, 17, 16, 31, 1, 5, -1, -1]}
1},
{"Name": "ToBurn-Cremare", "Data": [
                                 "Segments": [18, 35, 5, 6, 52, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "Spanish",
                                 "Segments": [18, -1, 5, 6, 3, 37, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [18, -1, 22, 6, 3, 37, 5]},
  {"Taxon": "Portuguese",
                                 "Segments": [18, -1, 21, 6, 3, 54, 5]},
  {"Taxon": "Catalan",
                                 "Segments": [18, 35, 39, 6, 3, -1, -1]}
]},
{"Name": "ToBurn-Flammare", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [2, 30, 3, 6, 6, 52, 35, 5]},
  {"Taxon": "French",
                                 "Segments": [2, 30, 3, -1, 6, 5, -1, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [2, 80, 3, -1, 6, 3, -1, -1]}
]},
{"Name": "ToBurn-Ardere", "Data": [
                                  "Segments": [3, 35, 45, 44, 35, 5]},
  {"Taxon": "Latin",
  {"Taxon": "French"
                                 "Segments": [3, 54, 45, -1, 54, -1]},
  {"Taxon": "Spanish"
                                 "Segments": [3, 37, 45, 5, 37, -1]},
  {"Taxon": "Italian",
                                 "Segments": [3, 35, 45, 5, 35, 5]},
```

```
{"Taxon": "PortugueseBrazil", "Segments": [3, 54, 45, 5, 54, -1]},
                                 "Segments": [38, 37, 45, 5, 37, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Friulian",
                                 "Segments": [3, 35, 45, 0, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [3, 37, 45, 5, -1, -1]}
1},
{"Name": "ToBurn-Incendere", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [0, 1, 18, 5, 1, 45, -1, 5, 35, 5]},
  {"Taxon": "Spanish",
                                 "Segments": [5, 1, 19, 5, 1, 45, -1, 5, 37, -1]},
  {"Taxon": "Italian",
                                 "Segments": [0, 1, 10, 12, 1, 45, -1, 5, 35, 5]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [8, -1, 17, 5, 1, 56, 68, 3, 37, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [8, -1, 17, 69, -1, 45, 34, 3, 37, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [39, 1, 17, 5, 1, 45, -1, -1, 37, 39]},
  {"Taxon": "Romanian",
                                 "Segments": [11, 1, 10, 0, 1, 45, 70, 5, -1, -1]}
]},
{"Name": "ToBurn-Ustulare", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [31, 17, 4, 31, 30, 52, 35, 5]},
  {"Taxon": "Romanian",
                                 "Segments": [31, 17, 4, 31, 35, 3, -1, -1]}
{"Name": "Big-Grandem", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [60, 35, 3, 1, 45, 5, 6]},
                                 "Segments": [60, 54, 7, -1, -1, -1, -1]},
  {"Taxon": "French",
  {"Taxon": "Spanish",
                                 "Segments": [60, 37, 3, 1, 45, 5, -1]},
  {"Taxon": "Italian",
                                 "Segments": [60, 35, 3, 1, 45, 5, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [60, 37, 9, -1, 56, 0, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [60, 37, 9, -1, 45, 11, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [60, 35, 3, 1, -1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [60, 35, 7, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [60, 35, 3, 1, 4, -1, -1]}
]},
{"Name": "Big-Majjorem", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [6, 76, 34, 47, 35, 5, 6]},
  {"Taxon": "Romanian",
                                 "Segments": [6, 3, -1, -1, -1, 37, 5]}
]},
{"Name": "Long-Longum", "Data":
  {"Taxon": "Latin",
                                 "Segments": [30, -1, 14, 1, 60, 31, 17]},
  {"Taxon": "French",
{"Taxon": "Spanish",
                                 "Segments": [30, -1, 24, -1, -1, -1, -1]},
                                 "Segments": [30, 23, 5, 1, 60, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [30, -1, 31, 1, 60, 14, -1]},
                                "Segments": [30, -1, 26, -1, 60, 31, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [30, -1, 26, -1, 60, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [33, -1, 14, 61, -1, -1, -1]},
                                 "Segments": [30, -1, 24, -1, -1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [30, -1, 31, 1, 18, -1, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [30, -1, 31, 1, 60, -1, -1]}
{"Name": "Long-Largum", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [30, 3, 35, 60, 31, 17]},
  {"Taxon": "French",
                                 "Segments": [30, 3, 54, 70, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [30, 3, 37, 60, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [30, 3, 35, 60, 14, -1]},
                                "Segments": [30, 3, 54, 60, 31, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [30, 3, 37, 60, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [33, 3, 37, 18, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [30, 3, -1, 56, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [30, 3, 35, 18, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [30, 3, 35, 60, -1, -1]}
{"Name": "Wide-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [30, 52, 4, 31, 17]},
  {"Taxon": "French"
                                 "Segments": [30, 5, -1, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [30, 3, 4, 14, -1]},
```

```
{"Taxon": "PortugueseBrazil", "Segments": [30, 3, 4, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [30, 3, 4, 31, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [30, 3, 4, -1, -1]}
1},
{"Name": "Wide-Amplum", "Data": [
                                 "Segments": [3, 6, 16, 30, 31, 17]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                 "Segments": [7, -1, 16, 30, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [3, 1, 10, -1, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [3, 6, 16, 34, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [9, -1, 20, -1, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [9, -1, 20, -1, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [3, 6, 16, 30, 39, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [7, -1, 16, -1, -1, -1]}
]},
{"Name": "Thick-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [18, 35, 3, 17, 17, 31, 17]},
  {"Taxon": "French"
                                 "Segments": [60, 54, 58, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [60, 37, 3, -1, 17, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [60, 35, 3, 17, 17, 14, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [60, 37, 3, -1, 20, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [60, 37, 3, -1, 17, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [18, 35, 58, -1, -1, -1, -1]},
  ("Taxon": "Friulian",
                                 "Segments": [60, 35, 3, 17, -1, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [60, 35, 3, 17, -1, -1, -1]}
]},
{"Name": "Thick-Spissum", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [-1, 17, 16, 0, 17, 17, 31, 17]},
 {"Taxon": "French", {"Taxon": "Spanish",
                                 "Segments": [5, -1, 16, 12, -1, -1, -1, -1]},
                                 "Segments": [5, 17, 16, 5, 17, 14, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [-1, 17, 16, 5, 17, 17, 14, -1]},
                                "Segments": [0, 17, 16, 12, -1, 17, 31, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [0, 20, 16, 5, -1, 17, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [39, 17, 16, 12, -1, 17, -1, -1]},
  {"Taxon": "Catalan",
  {"Taxon": "Walloon",
                                 "Segments": [-1, 17, 16, 12, -1, -1, -1, -1]}
]},
{"Name": "Thick-Gurdum", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [60, 31, 35, 45, 31, 17]},
  {"Taxon": "Spanish",
                                 "Segments": [60, 14, 37, 45, 14, -1]}
]},
{"Name": "Thick-Grossus", "Data": [
                                 "Segments": [60, 35, 14, -1, 17, 17, 31, 17]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                 "Segments": [60, 54, 14, -1, -1, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [60, 35, 46, -1, 17, 17, 14, -1]},
  {"Taxon": "PortugueseBrazil", "Segments": [60, 37, 14, -1, -1, 17, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [60, 37, 14, -1, -1, 17, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [60, 37, 46, -1, -1, 17, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [60, 37, 46, -1, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [60, 35, 23, 12, 17, -1, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [60, 35, 14, -1, 17, -1, -1, -1]}
]},
{"Name": "Heavy-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [60, 35, 3, -1, -1, 23, 0, 17]},
  {"Taxon": "French",
                                 "Segments": [60, 54, 0, 34, 12, 2, -1, -1]},
                                 "Segments": [60, 37, 3, -1, -1, 27, 5, -1]},
  {"Taxon": "Spanish",
  {"Taxon": "Italian",
                                 "Segments": [60, 35, 12, -1, -1, 28, 5, -1]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [60, 37, 3, -1, -1, 28, 0, -1]},
                                 "Segments": [60, 37, 3, -1, -1, 28, 11, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [60, 37, 5, -1, -1, 23, -1, -1]},
  {"Taxon": "Walloon"
                                 "Segments": [60, 35, 58, -1, -1, 28, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [60, 35, 12, -1, -1, 28, 0, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [60, 37, 5, -1, -1, 23, -1, -1]}
```

```
]},
{"Name": "Heavy-Lurdus", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [30, 31, 35, 45, 31, 17]},
  {"Taxon": "French",
                                 "Segments": [30, 31, 54, -1, -1, -1]},
  {"Taxon": "Italian",
                                 "Segments": [30, 14, 35, 45, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [30, 5, 37, 45, 14, -1]},
                                 "Segments": [30, 5, 37, 45, 14, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Walloon",
                                 "Segments": [30, 31, 35, -1, -1, -1]}
1},
{"Name": "Small-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [16, 0, 4, 4, 0, 4, 31, 17]},
  {"Taxon": "French"
                                 "Segments": [16, 39, -1, 4, 0, -1, -1, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [16, 39, -1, 4, 0, 4, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [16, 0, -1, 4, 0, -1, -1, -1]}
]},
{"Name": "Small-Pitulus", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [16, 0, 4, 31, 30, 31, 17]},
  {"Taxon": "Friulian",
                                 "Segments": [16, 0, 10, 31, 30, -1, -1]}
]},
{"Name": "New-Primary", "Data":
                                 "Segments": [1, -1, 14, 23, 31, 17]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                 "Segments": [1, -1, 48, 2, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [1, 23, 5, 27, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [1, 23, 46, 28, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [1, -1, 14, 28, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [1, -1, 14, 28, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [1, -1, 46, 23, -1, -1]},
 {"Taxon": "Walloon", {"Taxon": "Friulian",
                                 "Segments": [1, -1, 31, -1, -1, -1]},
                                 "Segments": [13, -1, 55, 2, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [1, -1, 14, 23, -1, -1]}
]},
{"Name": "New-Novellus", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [1, 14, 23, 5, 30, 30, 31, 17]},
  {"Taxon": "French"
                                 "Segments": [1, 31, 28, 14, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [1, 14, 64, 0, -1, 63, 14, -1]},
                                 "Segments": [1, 14, 28, 12, 30, 30, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [1, 31, 64, 5, -1, 33, 14, -1]},
  {"Taxon": "Catalan",
  {"Taxon": "Walloon",
                                 "Segments": [1, 46, 28, 44, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [1, 14, 28, 12, 30, -1, -1, -1]}
]},
{"Name": "New-Novella", "Data": [
                                 "Segments": [1, 14, 23, 5, 30, 30, 3]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                 "Segments": [1, 31, 28, 12, -1, 30, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [1, 14, 64, 0, -1, 63, 3]},
  {"Taxon": "Italian",
                                 "Segments": [1, 14, 28, 12, 30, 30, 3]},
  {"Taxon": "Catalan",
                                 "Segments": [1, 31, 64, 5, -1, 33, 3]},
  {"Taxon": "Walloon",
                                 "Segments": [1, 46, 28, 12, -1, 30, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [1, 31, 34, -1, -1, -1, 3]}
1},
{"Name": "Old-Primary", "Data":
                                 "Segments": [23, -1, 5, 4, 31, 30, 31, 17]},
  {"Taxon": "Latin",
  {"Taxon": "French"
                                 "Segments": [28, 34, 62, -1, -1, -1, -1,]},
                                 "Segments": [27, 34, 5, 36, 14, -1, -1, -1]},
  {"Taxon": "Spanish",
  {"Taxon": "Italian",
                                 "Segments": [28, -1, 12, 18, -1, 18, 34, 14]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [28, -1, 22, -1, -1, 33, 31, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [28, -1, 5, -1, -1, 33, 31, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [28, -1, 5, -1, -1, 33, -1, -1]},
  {"Taxon": "Walloon"
                                 "Segments": [28, 0, -1, -1, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [28, 34, 5, -1, -1, -1, 0, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [28, -1, 5, 67, -1, -1, -1, -1]}
]},
```

```
{"Name": "Good-Primary", "Data": [
                                 "Segments": [27, -1, 14, 1, 31, 17]},
  {"Taxon": "Latin",
  {"Taxon": "French",
                                 "Segments": [27, -1, 24, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [27, 23, 5, 1, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [27, 23, 46, 1, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                "Segments": [27, -1, 26, -1, -1, -1]},
                                 "Segments": [27, -1, 26, -1, -1, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [27, -1, 46, 1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [27, -1, 24, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [27, -1, 46, 1, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [27, -1, 31, 1, -1, -1]}
]},
{"Name": "Far-Primary", "Data": [
                                 "Segments": [30, 23, 40, -1, 4, 40, -1, -1]},
  {"Taxon": "French",
  {"Taxon": "Italian",
                                 "Segments": [30, -1, 14, 1, 4, 3, 1, 14]},
  {"Taxon": "Catalan",
                                 "Segments": [33, -1, 31, 1, 4, 3, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [30, -1, 14, 1, 4, 3, 1, -1]}
{"Name": "Red-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [35, 31, 17, 17, 31, 17]},
  {"Taxon": "French",
                                 "Segments": [54, 31, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [35, 14, -1, 36, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [35, 14, 17, 17, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [54, 14, -1, 20, 81, -1]},
                                 "Segments": [54, 14, -1, 20, 31, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [35, 14, -1, 17, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [35, 46, 56, -1, -1, -1]},
  {"Taxon": "Friulian",
                                "Segments": [35, 46, -1, 17, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [37, 14, -1, 20, 31, -1]}
]},
{"Name": "Red-Vermiculus", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [28, 5, 35, 6, 0, 18, 31, 30, 31, 17]},
  {"Taxon": "French"
                                 "Segments": [28, 12, 54, 6, 66, -1, -1, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [27, 5, 37, 6, 5, 36, 14, -1, -1, -1]},
                                 "Segments": [28, 5, 54, 6, 5, -1, -1, 33, 31, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [28, 11, 37, 6, 22, -1, -1, 33, 31, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [27, 39, 35, 6, 12, -1, -1, 33, -1, -1]}
]},
{"Name": "Red-Rubeus", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [35, 31, -1, 27, 5, 31, 17]},
                                 "Segments": [54, 31, -1, 70, -1, -1, -1]},
  {"Taxon": "French",
                                 "Segments": [35, 31, -1, 27, 34, 14, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [35, 46, 27, 27, 34, 14, -1]},
  {"Taxon": "Italian",
                                "Segments": [35, 31, -1, 27, 5, 14, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [35, 31, -1, 27, 5, 14, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [35, 31, -1, 56, 5, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [35, 46, -1, 10, -1, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [35, 57, -1, 27, -1, -1, -1]}
{"Name": "Black-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [1, -1, 0, 60, 35, 31, 6]},
  {"Taxon": "French"
                                 "Segments": [1, 23, 3, -1, 54, -1, -1]},
                                 "Segments": [1, 5, 72, 37, 14, -1, -1]},
  {"Taxon": "Spanish",
  {"Taxon": "Italian",
                                 "Segments": [1, 5, -1, 35, 14, -1, -1]},
                                 "Segments": [1, 5, 60, 37, 31, -1, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [1, 5, 60, 37, 31, -1, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [1, 12, 72, 37, 39, -1, -1]},
  {"Taxon": "Walloon"
                                 "Segments": [1, 62, -1, 35, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [1, 5, -1, 35, 0, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [1, 5, 60, 37, 31, -1, -1]}
]},
```

```
{"Name": "Black-Pretto", "Data": [
  {"Taxon": "Spanish",
                                 "Segments": [16, 37, 34, 5, 4, 14]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [16, 37, -1, 5, 4, 31]},
                                 "Segments": [16, 37, -1, 5, 4, 31]}
  {"Taxon": "Portuguese",
1},
{"Name": "One-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [55, 1, 31, 17]},
  {"Taxon": "French",
                                 "Segments": [82, -1, -1, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [31, 1, 14, -1]},
  {"Taxon": "Italian",
                                 "Segments": [31, 1, 14, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [83, -1, -1, -1]},
                                 "Segments": [83, -1, -1, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Catalan",
                                 "Segments": [31, 1, -1, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [24, -1, -1, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [31, 1, -1, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [31, 1, 31, -1]}
]},
{"Name": "Who-Qui", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [75, -1, 0, 17]},
  {"Taxon": "French",
                                 "Segments": [18, -1, 0, -1]},
  {"Taxon": "Italian",
                                 "Segments": [18, -1, 0, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [18, -1, 0, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [18, -1, 0, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [18, 23, 0, -1]}
]},
{"Name": "Who-Quem", "Data": [
                                 "Segments": [75, -1, 5, 6, -1]},
  {"Taxon": "Latin",
  {"Taxon": "Spanish",
                                 "Segments": [18, 34, 5, 1, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [18, -1, 15, -1, -1]},
                                 "Segments": [18, -1, 84, -1, -1]},
  {"Taxon": "Portuguese",
  {"Taxon": "Romanian",
                                 "Segments": [10, -1, 0, 1, 5]}
]},
{"Name": "What-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [75, -1, 0, 45]},
  {"Taxon": "French",
{"Taxon": "Spanish",
                                 "Segments": [18, 23, 3, -1]},
                                 "Segments": [18, -1, 5, -1]},
                                 "Segments": [18, -1, 5, -1]},
  {"Taxon": "Italian",
                                 "Segments": [18, -1, 0, -1]},
  {"Taxon": "PortugueseBrazil",
                                 "Segments": [18, -1, 11, -1]},
  {"Taxon": "Portuguese",
                                 "Segments": [18, -1, 12, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [18, 23, 12, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [10, -1, 5, -1]},
  {"Taxon": "Friulian",
  {"Taxon": "Romanian",
                                 "Segments": [10, -1, 5, -1]}
1},
{"Name": "Not-Primary", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [1, 47, 1]},
  {"Taxon": "French",
                                 "Segments": [1, 24, -1]},
  {"Taxon": "Spanish",
                                 "Segments": [1, 14, -1]},
                                 "Segments": [1, 14, 1]},
  {"Taxon": "Italian",
                                 "Segments": [1, 41, -1]},
  {"Taxon": "PortugueseBrazil",
  {"Taxon": "Portuguese",
                                 "Segments": [1, 41, -1]},
  {"Taxon": "Catalan",
                                 "Segments": [1, 14, -1]},
  {"Taxon": "Walloon",
                                 "Segments": [1, 24, -1]},
  {"Taxon": "Friulian",
                                 "Segments": [1, 14, -1]},
  {"Taxon": "Romanian",
                                 "Segments": [1, 31, -1]}
{"Name": "Not-Nec", "Data": [
  {"Taxon": "Latin",
                                 "Segments": [1, 5, 18]},
  {"Taxon": "French"
                                 "Segments": [1, 0, -1]},
  {"Taxon": "Spanish"
                                 "Segments": [1, 0, -1]},
  {"Taxon": "Italian",
                                 "Segments": [1, 5, -1]},
```

## Appendix 1 - Tongue Twister Configuration

```
{"Taxon": "PortugueseBrazil", "Segments": [1, 15, -1]},
                                     "Segments": [1, 84, -1]},
    {"Taxon": "Portuguese",
    {"Taxon": "Catalan",
                                     "Segments": [1, 0, -1]},
    {"Taxon": "Walloon",
                                     "Segments": [1, 0, -1]}
  ]},
  {"Name": "In-In", "Data": [
    {"Taxon": "Latin",
                                     "Segments": [0, 1]},
    {"Taxon": "French", {"Taxon": "Spanish",
                                     "Segments": [7, -1]},
                                     "Segments": [5, 1]},
    {"Taxon": "Italian",
                                     "Segments": [0, 1]},
"Segments": [15, -1]},
    {"Taxon": "PortugueseBrazil",
                                     "Segments": [84, -1]},
    {"Taxon": "Portuguese",
    {"Taxon": "Catalan",
                                     "Segments": [39, 1]},
    {"Taxon": "Walloon",
                                     "Segments": [12, 1]},
    {"Taxon": "Romanian",
                                     "Segments": [11, 1]}
  ]},
  {"Name": "In-Deintus", "Data": [
    {"Taxon": "Latin", {"Taxon": "French",
                                     "Segments": [45, 5, 0, 1, 4, 31, 17]},
                                     "Segments": [45, 7, -1, -1, -1, -1]},
    {"Taxon": "Catalan",
                                     "Segments": [45, 0, -1, 1, -1, -1, 17]}
  ]}
 ]
}
```