

# TME2 - PHYG

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## 1 Exercise 1 : Genome evolution simulation

### 1.1 Question 1

### 1.2 Question 2

### 1.3 Question 3

## 2 Exercise 2 : Implementation of simple events

Cf. folder "code".

## 3 Exercise 3 : Reconstruction using characters

### 3.1 Question 1

Cf. folder "code/results/[1-10]".

### 3.2 Question 2

|               | Sim 1 | Sim 2 | Sim 3 | Sim 4 | Sim 5 | Sim 6 | Sim 7 | Sim 8 | Sim 9 | Sim 10 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Inversion     | 7     | 10    | 11    | 11    | 12    | 10    | 7     | 8     | 7     | 10     |
| Translocation | 8     | 1     | 5     | 1     | 4     | 7     | 6     | 2     | 1     | 6      |
| Duplication   | 0     | 1     | 0     | 1     | 2     | 0     | 1     | 3     | 3     | 0      |
| Deletions     | 0     | 2     | 1     | 1     | 2     | 0     | 3     | 2     | 4     | 0      |
| Fusions       | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      |
| Fissions      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      |
| WGD           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      |

### 3.3 Question 3

### 3.4 Question 4

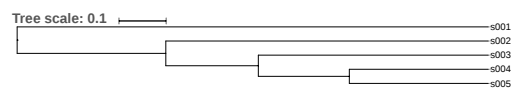


Figure 1: Parsimony tree without enlarged malleolus