**S5 Table. Summary of admixture events inferred by TREEMIX for the adaptive introgression regions assigned to the three alternative topologies.** San Salvador generalist (A), San Salvador large-jawed scale-eater (L), San Salvador small-jawed scale-eater (S), San Salvador molluscivore (M), *C laciniatus* from New Providence Island Bahamas (CUN), *C. bondi* from Dominican Republic (ETA), most recent common ancestor of Caribbean pupfish lineages (MRC).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Scaffold** | **Segment** | **F4** | **gene** | Admix events | CUN into L | CUN into M | ETA into L | ETA into M | Other |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| KL652649.1 | 863668-873661 | 0.2536 | NA\* | 3 |  |  |  |  | root M/CUN/PIG/G into S | MRC into A | MRC into PIG |  |
| KL652702.1 | 312277-322263 | 0.2461 | celf4 | 2 |  |  |  |  | M into L | L into S | S into L |  |
| KL652715.1 | 799363-809363 | -0.223 | pard3\* | 2 |  |  |  |  | M into MRC | M into G |  |  |
| KL652867.1 | 545190-575190 | -0.28 | nbea | 3 |  |  |  |  | CUN into PIG | S into ETA | M into S |  |
| KL652983.1 | 269059-279054 | 0.2606 | **ski\*** | 1 |  | X |  |  |  |  |  |  |
| KL653033.1 | 403145-413142 | -0.279 | NA | 4 |  |  |  |  | ETA into A | M into A | M into S | M into L |
| KL653171.1 | 362672-372487 | -0.255 | ltbp2 | 2 | X |  |  |  | M into A |  |  |  |
| KL653356.1 | 50344-70348 | 0.26 | srbd1 | 2 |  |  |  |  | PIG into S | root M,CUN,L into G |  |  |
| KL653356.1 | 70356-80348 | -0.267 | srbd1 | 2 | X |  |  |  | PIG into S |  |  |  |
| KL653906.1 | 10377-20368 | -0.228 | mcu | 2 |  |  |  |  | M into PIG | M into A |  |  |
| KL652964.1 | 411177-421153 | -0.275 | rbms3 | 3 |  |  |  |  | PIG into ETA | root L,S into PIG | root L,S into A |  |