|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 |
| 1.- outgroup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2.- atte | 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.- cf\_marg | 31 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.- marg | 33 | 8 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.- potae | 31 | 12 | 12 | 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6.- L5 | 30 | 17 | 17 | 16 | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7.- tata | 30 | 16 | 16 | 16 | 15 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8.- sp5 | 30 | 15 | 16 | 16 | 15 | 10 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9.- L3 | 31 | 15 | 15 | 15 | 14 | 10 | 11 | 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10.- sp1 | 31 | 14 | 14 | 16 | 14 | 13 | 13 | 13 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11.- sp2 | 31 | 15 | 14 | 15 | 15 | 13 | 13 | 13 | 5 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **12.- Cvi** | **30** | **15** | **14** | **15** | **15** | **13** | **13** | **13** | **4** | **2** | **3** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **13.- Gba** | **31** | **15** | **15** | **16** | **14** | **12** | **12** | **11** | **7** | **6** | **7** | **5** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14.- arq | 31 | 15 | 16 | 15 | 16 | 11 | 10 | 10 | 8 | 11 | 10 | 10 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15.- L2 | 29 | 15 | 15 | 16 | 15 | 11 | 12 | 12 | 10 | 11 | 10 | 10 | 10 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16.- sp4 | 31 | 15 | 14 | 16 | 14 | 13 | 13 | 13 | 10 | 11 | 11 | 10 | 9 | 11 | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17.- dent | 28 | 12 | 12 | 14 | 14 | 13 | 14 | 12 | 12 | 12 | 13 | 13 | 12 | 13 | 11 | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18.- album | 34 | 15 | 16 | 16 | 18 | 18 | 18 | 16 | 16 | 15 | 16 | 15 | 15 | 17 | 17 | 14 | 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19.- L1 | 32 | 16 | 17 | 18 | 17 | 15 | 17 | 16 | 16 | 17 | 17 | 18 | 16 | 16 | 16 | 17 | 15 | 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **20.- Cra** | **31** | **15** | **16** | **18** | **15** | **15** | **16** | **15** | **15** | **15** | **15** | **16** | **14** | **15** | **14** | **15** | **13** | **17** | **5** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 21.- sin | 28 | 15 | 16 | 17 | 17 | 18 | 17 | 15 | 16 | 16 | 16 | 16 | 15 | 17 | 16 | 16 | 14 | 19 | 18 | 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 22.- comp | 29 | 15 | 16 | 17 | 17 | 19 | 18 | 16 | 16 | 16 | 16 | 16 | 16 | 17 | 17 | 16 | 16 | 20 | 20 | 18 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23.- M4 | 29 | 16 | 16 | 17 | 17 | 16 | 17 | 15 | 15 | 15 | 15 | 15 | 15 | 14 | 16 | 16 | 14 | 18 | 19 | 17 | 6 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |
| 24.- cuta | 31 | 17 | 17 | 18 | 17 | 17 | 18 | 16 | 17 | 18 | 19 | 18 | 16 | 16 | 16 | 17 | 15 | 17 | 16 | 16 | 11 | 13 | 12 |  |  |  |  |  |  |  |  |  |  |  |
| 25.- phala | 32 | 19 | 18 | 20 | 17 | 19 | 18 | 17 | 16 | 17 | 17 | 17 | 15 | 17 | 18 | 16 | 15 | 19 | 18 | 17 | 11 | 12 | 12 | 10 |  |  |  |  |  |  |  |  |  |  |
| 26.- Tila | 30 | 18 | 16 | 19 | 17 | 17 | 17 | 16 | 17 | 17 | 17 | 17 | 17 | 18 | 16 | 16 | 14 | 18 | 19 | 17 | 14 | 14 | 13 | 11 | 11 |  |  |  |  |  |  |  |  |  |
| 27.- M3 | 30 | 16 | 17 | 19 | 16 | 15 | 16 | 15 | 15 | 15 | 16 | 16 | 15 | 16 | 16 | 16 | 14 | 19 | 18 | 17 | 12 | 13 | 12 | 13 | 11 | 11 |  |  |  |  |  |  |  |  |
| 28.- M1 | 34 | 16 | 18 | 16 | 18 | 16 | 19 | 17 | 16 | 17 | 18 | 17 | 16 | 17 | 18 | 18 | 17 | 19 | 18 | 18 | 14 | 15 | 14 | 13 | 12 | 16 | 15 |  |  |  |  |  |  |  |
| 29.- M2 | 32 | 14 | 15 | 16 | 17 | 15 | 16 | 16 | 15 | 17 | 17 | 16 | 16 | 15 | 16 | 15 | 15 | 19 | 18 | 19 | 13 | 14 | 13 | 13 | 12 | 15 | 12 | 7 |  |  |  |  |  |  |
| 30.- Phil | 31 | 16 | 18 | 18 | 19 | 17 | 17 | 17 | 17 | 18 | 18 | 18 | 17 | 18 | 17 | 17 | 17 | 19 | 19 | 17 | 13 | 14 | 13 | 13 | 13 | 13 | 12 | 13 | 12 |  |  |  |  |  |
| 31.- brieni | 32 | 16 | 17 | 17 | 17 | 16 | 16 | 13 | 15 | 14 | 13 | 14 | 12 | 15 | 15 | 15 | 13 | 16 | 19 | 17 | 14 | 14 | 13 | 15 | 14 | 16 | 13 | 16 | 15 | 16 |  |  |  |  |
| 32.- sp7 | 32 | 17 | 17 | 19 | 18 | 19 | 18 | 17 | 17 | 16 | 17 | 18 | 18 | 18 | 19 | 18 | 15 | 21 | 17 | 15 | 17 | 17 | 18 | 18 | 18 | 19 | 19 | 21 | 22 | 19 | 19 |  |  |  |
| 33.- heluans | 32 | 16 | 17 | 17 | 18 | 16 | 18 | 16 | 15 | 16 | 17 | 16 | 17 | 16 | 15 | 17 | 16 | 19 | 20 | 18 | 17 | 17 | 17 | 17 | 18 | 17 | 17 | 18 | 17 | 19 | 15 | 20 |  |  |
| 34.- E\_het | 29 | 20 | 19 | 18 | 21 | 19 | 18 | 20 | 18 | 20 | 20 | 20 | 19 | 19 | 18 | 21 | 17 | 20 | 20 | 19 | 18 | 19 | 19 | 20 | 20 | 20 | 20 | 20 | 21 | 20 | 19 | 23 | 21 |  |
| 35.- E | 30 | 19 | 19 | 20 | 21 | 20 | 19 | 17 | 18 | 19 | 18 | 19 | 17 | 18 | 18 | 19 | 16 | 20 | 20 | 18 | 17 | 18 | 18 | 19 | 18 | 19 | 19 | 20 | 19 | 21 | 18 | 21 | 19 | 13 |

Abreviattions: album = *C. album*; arq = *C. arquus*; atte = *C. attenuatum*; brieni= *C. brieni*; cafa = *C. caffarae*; cf\_marg = *C*. cf. *marginatum*; cichli = *C. cichlidorum*; comp = *C. complanatum*; **Cra = *Clinostomum* sp. on *Characidium rachovii***; cuta = *C*. *cutaneum*; **Cvi = *Clinostomum* sp. on *Crenicichla vitatta*;** dent = *C. detruncatum*; E = *Euclinostomum* sp.; E\_het= *E. heterostomum*; **Gba = *Clinostomum* sp. on *Gymnogeophagus balzanii***; heluans = *C. heluans*; L1and L3= *Clinostomum* sp. sensu Pérez-Ponce de León et al. (2016); M1-M4= *Clinostomum* sp. sensu Caffara et al. (2017); marg = *C. marginatum*; outgroup= *Posthodiplostomum* sp., phala = *C. phalacrocoracis*; phil = *C. philippiensis*; potae= *C.* *potae*; sp1, sp2, sp4,sp5 and sp8= *Clinostomum* sensu Locke et al. (2015); sp7 sensu Pinto et al. (2015); sin= *C. sinensis*; tata = *C. tataxumui*; tila = *Clinostomum tilapiae*.