Diversification process between monogenoids (Dactylogyridae) and their marine catfish (Siluriformes: Ariidae) from the Atlantic coast of South America

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Table S1. Additional details on the construction of the distance matrix of host species based on morphological characters sensu Marceniuk et al. (2012b).

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **B\_ba** | **B\_ma** | **S\_co** | **S\_pr** | **S\_he** | **S\_pa** | **G\_ge** | **G\_ba** | **A\_ru** | **N\_gr** | **A\_lu** | **A\_qu** |
| **B\_ba** | 0 | 46 | 137 | 146 | 137 | 139 | 122 | 122 | 155 | 139 | 157 | 157 |
| **B\_ma** | 46 | 0 | 137 | 146 | 137 | 139 | 122 | 122 | 155 | 139 | 157 | 157 |
| **S\_co** | 137 | 137 | 0 | 27 | 16 | 11 | 51 | 51 | 76 | 60 | 78 | 78 |
| **S\_pr** | 146 | 146 | 27 | 0 | 27 | 25 | 60 | 60 | 85 | 69 | 87 | 87 |
| **S\_he** | 137 | 137 | 16 | 27 | 0 | 21 | 51 | 51 | 76 | 60 | 78 | 78 |
| **S\_pa** | 139 | 139 | 11 | 25 | 21 | 0 | 54 | 54 | 79 | 63 | 81 | 81 |
| **G\_ge** | 122 | 122 | 51 | 60 | 51 | 54 | 0 | 12 | 69 | 53 | 71 | 71 |
| **G\_ba** | 122 | 122 | 51 | 60 | 51 | 54 | 12 | 0 | 69 | 53 | 71 | 71 |
| **A\_ru** | 155 | 155 | 76 | 85 | 76 | 79 | 69 | 69 | 0 | 34 | 35 | 35 |
| **N\_gr** | 139 | 139 | 60 | 69 | 60 | 63 | 53 | 53 | 34 | 0 | 36 | 36 |
| **A\_lu** | 157 | 157 | 78 | 87 | 78 | 81 | 71 | 71 | 35 | 36 | 0 | 14 |
| **A\_qu** | 157 | 157 | 78 | 87 | 78 | 81 | 71 | 71 | 35 | 36 | 14 | 0 |
| Labels: B\_ba = *Bagre bagre*; B\_ma = *Bagre marinus*; S\_co = *Sciades couma*; S\_pr = *Sciades proops*; S\_he = *Sciades herbergii*; S\_pa = *Sciades passany*; G\_ge = *Genidens genidens*; G\_ba = *Genidens barbus*; A\_ru = *Amphiarius rugispinis*; N\_gr = *Notarius grandicassis*; A\_lu = *Aspistor luniscutis*; A\_qu = *Aspistor quadriscutis.* | | | | | | | | | | | | |

The matrix was constructed as follows:

*Bagre bagre* and *B. marinus* are sister groups (see Marceniuk et al. [2012 b], Clade 6, figure 29, p. 607). These species share characteristics with Clades 4 and 5. The patristic distance between *Bagre bagre* and *B. marinus* are the sum of these characteristics. Clade 4 has 39 synapormorphies, Clade 5, 4 and Clade 6, 3 (39 + 4 + 3 = 46). For the list of morphological characters see Marceniuk *et al.* (2012 b, pp. 606-635).