**Appendix S3-** Evolutionary distinctiveness metrics in values and ranks (in parentheses) for Fenwick *et al.* (2009) and Burbrink *et al*. (2012) phylogenies of Neotropical pitvipers. EDHL = ED values calibrated with percentage of habitat loss as probability of extinction. EDGE = ED values calibrated with IUCN threat categories as probability of extinction. The ten highest ranked taxa in each metric are marked with an asterisk, and the three highest are marked in bold.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Burbrink *et al*. (2012) | | | Fenwick *et al*. (2009) | | |
| Taxon | ED | EDHL | EDGE | ED | EDHL | EDGE |
| *Bothrocophias andianus* | - | - | - | 0.174 (11) | 0.016 (31) | 0.002 (13) |
| *Bothrocophias campbelli* | **7.060 (2\*)** | **2.401 (3\*)** | 0.071 (32) | 0.173 (12) | 0.059 (9\*) | 0.002 (14) |
| *Bothrocophias hyoprora* | 5.450 (4\*) | 0.436 (27) | 0.054 (29) | 0.194 (9\*) | 0.016 (32) | 0.002 (11) |
| *Bothrocophias microphthalmus* | 5.450 (5\*) | 0.817 (22) | 0.054 (30) | 0.111 (26) | 0.017 (30) | 0.001 (28) |
| *Bothrocophias myersi* | - | - | - | 0.243 (6\*) | 0.083 (5\*) | 0.002 (8\*) |
| *Bothrops alcatraz* | 2.486 (23) | 0.845 (20) | **2.238 (2\*)** | 0.058 (37) | 0.020 (27) | **0.052 (2\*)** |
| *Bothrops alternatus* | 4.915 (6\*) | 1.278 (9\*) | 0.049 (27) | 0.217 (8\*) | 0.056 (13) | 0.002 (10\*) |
| *Bothrops ammodytoides* | **6.355 (3\*)** | 0.953 (14) | 0.064 (31) | **0.286 (3\*)** | 0.043 (19) | 0.003 (5\*) |
| *Bothrops asper* | 2.779 (20) | 0.500 (25) | 0.028 (14) | 0.052 (38) | 0.010 (36) | <0.001 (38) |
| *Bothrops atrox* | 1.848 (30) | 0.166 (33) | 0.018 (4\*) | 0.052 (39) | 0.005 (39) | <0.001 (39) |
| *Bothrops barnetti* | - | - | - | **0.287 (2\*)** | 0.057 (10) | 0.003 (4\*) |
| *Bothrops b. bilineatus* | 4.136 (11) | 1.034 (13) | 0.041 (23) | 0.133 (21) | 0.033 (22) | 0.001 (23) |
| *Bothrops b. smaragdinus* | - | - | - | 0.112 (25) | 0.004 (40) | 0.001 (27) |
| *Bothrops brazili* | 3.890 (12) | 0.233 (32) | 0.039 (22) | 0.114 (24) | 0.007 (38) | 0.001 (26) |
| *Bothrops caribbaeus* | 2.708 (21) | 0.921 (16) | 0.027 (12) | 0.110 (28) | 0.037 (21) | 0.001 (30) |
| *Bothrops chloromelas* | 3.759 (14) | 0.413 (28) | 0.038 (19) | 0.097 (29) | 0.011 (35) | <0.001 (31) |
| *Bothrops colombiensis* | 1.993 (28) | 0.518 (24) | 0.020 (8\*) | **-** | **-** | **-** |
| *Bothrops cotiara* | 4.195 (9\*) | 2.056 (5\*) | 0.042 (24) | 0.115 (23) | 0.056 (12) | 0.001 (25) |
| *Bothrops diporus* | 2.376 (25) | 0.832 (21) | 0.024 (11) | 0.124 (22) | 0.044 (18) | 0.001 (24) |
| *Bothrops erythromelas* | 3.486 (18) | 2.022 (6\*) | 0.035 (16) | 0.142 (19) | 0.083 (4\*) | 0.001 (21) |
| *Bothrops fonsecai* | 4.195 (10\*) | **2.979 (2\*)** | 0.042 (25) | 0.096 (30) | 0.069 (7\*) | <0.001 (32) |
| *Bothrops insularis* | 2.486 (24) | 0.845 (19) | **2.238 (1\*)** | 0.082 (32) | 0.022 (25) | **0.075 (1\*)** |
| *Bothrops isabelae* | 1.914 (29) | 0.708 (23) | 0.019 (7\*) | 0.079 (34) | 0.029 (24) | <0.001 (35) |
| *Bothrops itapetiningae* | 4.915 (7\*) | **3.686 (1\*)** | 0.049 (28) | 0.189 (10\*) | **0.142 (1\*)** | 0.002 (12) |
| *Bothrops jararaca* | 3.038 (19) | 0.911 (17) | 0.030 (15) | 0.050 (40) | 0.015 (33) | <0.001 (40) |
| *Bothrops jararacussu* | 3.890 (13) | 2.334 (4\*) | 0.039 (21) | 0.148 (17) | **0.089 (3\*)** | 0.001 (19) |
| *Bothrops jonathani* | - | - | - | **0.497 (1\*)** | **0.099 (2\*)** | **0.005 (3\*)** |
| *Bothrops lanceolatus* | 2.708 (22) | 0.921 (15) | 0.027 (13) | 0.110 (27) | 0.038 (20) | 0.001 (29) |
| *Bothrops leucurus* | 1.772 (32) | 1.223 (10\*) | **0.018 (3\*)** | 0.081 (33) | 0.056 (14) | <0.001 (34) |
| *Bothrops marajoensis* | 1.848 (31) | 0.314 (30) | 0.018 (5\*) | 0.079 (35) | 0.013 (34) | <0.001 (36) |
| *Bothrops mattogrossensis* | - | - | - | 0.148 (16) | 0.049 (15) | 0.001 (18) |
| *Bothrops moojeni* | 1.772 (33) | 0.461 (26) | 0.018 (6\*) | 0.075 (36) | 0.020 (28) | <0.001 (37) |
| *Bothrops neuwiedi* | 2.283 (26) | 1.507 (7\*) | 0.023 (10\*) | 0.092 (31) | 0.061 (8\*) | <0.001 (33) |
| *Bothrops osbornei* | 3.713 (16) | 1.151 (11) | 0.037 (18) | 0.156 (13) | 0.048 (16) | 0.002 (15) |
| *Bothrops pauloensis* | 2.283 (27) | 1.324 (8\*) | 0.023 (9\*) | 0.134 (20) | 0.078 (6\*) | 0.001 (22) |
| *Bothrops pictus* | **8.416 (1\*)** | 0.252 (31) | 0.084 (33) | 0.268 (4\*) | 0.008 (37) | 0.003 (6\*) |
| *Bothrops pulcher* | 4.336 (8\*) | 0.910 (18) | 0.043 (26) | 0.147 (18) | 0.031 (23) | 0.001 (20) |
| *Bothrops punctatus* | 3.713 (17) | 1.114 (12) | 0.037 (17) | 0.155 (14) | 0.047 (17) | 0.002 (16) |
| *Bothrops sanctaecrucis* | - | - | - | 0.259 (5\*) | 0.026 (26) | 0.003 (7\*) |
| *Bothrops taeniatus* | 3.759 (15) | 0.413 (29) | 0.038 (20) | 0.152 (15) | 0.017 (29) | 0.002 (17) |
| *Bothrops venezuelensis* | - | - | - | 0.219 (7\*) | 0.057 (11) | 0.002 (9\*) |