**Supplementary Table 1. Relative** **abundance of dominant phyla in different frogs.**

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| --- | --- | --- |
| **Species name** | **Mountain stream** | **Mountain pond** |
| *O. tormota*(%) | *O. schmackeri*(%) | *A. wuyiensis*(%) | *P. megacephalus* (%) |
| Firmicutes | 23.12%a | 52.75%b | 45.99%ab | 62.47%b |
| Proteobacteria | 13.93%a | 14.63%a | 20.72%a | 19.87%a |
| Bacteroidetes | 27.31%a | 20.12%ab | 6.76%b | 8.56%b |
| Verrucomicrobia | 24.13%a | 10.40%ac | 3.26%bc | 3.53%c |
| Fusobacteria | 10.44%ab | 0.14%a | 21.41%ab | 2.19%b |

a, b, c, d indicate differences of related abundance at the same phylum level among four frog species (*P* < 0.05).