Appendix 1 Dominant bacteria of gut microbiota in different snake species

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| **Status** | **Species** | **Sex** | **Location** | **Individual** | **Collection** | **Dominant phyla** | **Dominant genus** | **References** |
| Wild | *Ptyas dhumnades* | ♀ (pregnant) | Guilin, Guangxi, China | n = 3 | Feces | Bacteroidetes, Proteobacteria, Firmicutes | *Myroides, Bacteroides, Koukoulia, Citrobacter* | Li, Sun & Xu, 2021 |
| Xiangyang, Hubei, China | n = 3 | *Myroides, Bacteroides, Citrobacter, Cetobacterium* |
| *Crotalus horridus* | ♂ | Winona, Minnesota, USA | n = 1 | Stomach | Proteobacteria, Firmicutes, Bacteroidetes | */* | McLaughlin, Cochran & Dowd 2015 |
| Small intestine |
| Colon |
| *Rhabdophis subminiatus* | 2♀ (1Juvenile), 1♂ | Guangdong, China | n = 3 | Esophagus | Proteobacteria, Firmicutes, Bacteroidetes | *Fusobacterium, Mycoplasma, Bacteroides, Acinetobacter* | Tang *et al*., 2019 |
| Stomach |
| Large intestine |
| Small intestine |
| Cloaca |
| *Agkistrodon piscivorus* | / | Winston and Lafayette, Mississippi, USA | n = 3 | Large intestine | Bacteroidetes, Firmicutes, Proteobacteria | */* | Colston *et al*., 2015 |
| n = 3 | Cloaca | Proteobacteria, Firmicutes, Bacteroidetes |
| n = 8 | Small intestine |
| *Rhabdophis tigrinus* | / | Changyi District, Jilin, Jilin, China | n = 3 | Large intestine | Fusobacteria, Proteobacteria, Firmicutes | *Cetobacterium, Fusobacterium, Citrobacter, Bacteroides* | Tang *et al*., 2019 |
| Cloaca | Fusobacteria, Proteobacteria, Bacteroidetes | *Cetobacterium, Bacteroides, Fusobacterium, Citrobacter* |
| Small intestine | *Cetobacterium, Citrobacter, Fusobacterium, Bacteroides* |
| Farmed | *Elaphe carinata* | / |  | n = 3 | / | Firmicutes, Bacteroidetes, Proteobacteria | *Bacteroides, norank\_f\_Porphyromonadaceae, Enterococcus, Escherichia-Shigella* | Lu *et al*., 2019 |
| *Elaphe anomala* | / |  | n = 3 | / | Firmicutes, Bacteroidetes, Proteobacteria | *Bacteroides, norank\_f\_Porphyromonadaceae, Enterococcus, Clostridium\_sensu\_stricto\_1* |
| *Elaphe schrenckii* | / |  | n = 3 | / | Firmicutes, Proteobacteria, Bacteroidetes | *Bacteroides, Bacillus, Enterococcus, Clostridium\_sensu\_stricto\_1* |
| *Deinagkistrodon acutus* | / |  | n = 8 | Small and large intestine | Bacteroidetes, Firmicutes, Fusobacteria | *Bacteroides, Cetobacterium, Aeromonas, Providencia* | Qin *et al*., 2019 |
| *Naja atra* | / |  | n = 14 |
| *Ptyas mucosa* | / |  | n = 7 |
| *Elaphe carinata* | / | Xiangxi, Hunan, China | n = 6 | feces | Bacteroidetes, Proteobacteria, Firmicutes | *Bacteroides, Cetobacterium, Clostridium, Plesiomonas* | Zhang *et al*., 2019 |
| *Naja atra* | / | Yongzhou, Hunan, China | n = 6 |
| *Deinagkistrodon acutus* | / | n = 6 |
| *Ptyas mucosa* | / | n = 4 |
| *Python taeniura* | Juvenile |  | n = 32 | Large intestine, small intestine, and cecum | Firmicutes, Bacteroidetes, Proteobacteria | *Bacteroides, Rikenella, Lactobacillus, Synergistes* | Costello *et al*., 2010 |
| *Elaphe taeniura* | / | Yunnan, China | n = 5 | Jejunum, ileum, and rectum | Firmicutes, Bacteroidetes, Proteobacteria | *Enterococcus, Lactobacillus, Clostridium, Akkermansia* | Shi & Sun, 2017 |