

Table S3 Results of linear discriminatory analysis (LDA) on the relative abundance between *Chinemys reevesii* (CR) and *Trachemys scripta elegans* (TSE).

| Taxon | Group | LDA value | P value |
|---|-------|-----------|----------|
| Firmicutes.Clostridia.Clostridiales.Lachnospiraceae | CR | 5.010648 | 0.049535 |
| Bacteroidetes.Bacteroidia.Bacteroidales.Porphyromonadaceae | TSE | 5.205142 | 0.049535 |
| Bacteroidetes | TSE | 5.154239 | 0.049535 |
| Firmicutes | CR | 5.148316 | 0.049535 |
| Firmicutes.Clostridia | CR | 5.110004 | 0.049535 |
| Firmicutes.Clostridia.Clostridiales | CR | 5.10834 | 0.049535 |
| Bacteroidetes.Bacteroidia.Bacteroidales | TSE | 5.105383 | 0.049535 |
| Bacteroidetes.Bacteroidia | TSE | 5.058165 | 0.049535 |
| Bacteroidetes.Bacteroidia.Bacteroidales.Bacteroidaceae | CR | 5.044687 | 0.049535 |
| Fusobacteria.Fusobacteriia.Fusobacteriales | TSE | 4.799418 | 0.046302 |
| Fusobacteria.Fusobacteriia | TSE | 4.778695 | 0.046302 |
| Fusobacteria.Fusobacteriia.Fusobacteriales.Fusobacteriaceae | TSE | 4.764831 | 0.046302 |
| Fusobacteria | TSE | 4.750134 | 0.046302 |
| Firmicutes.Clostridia.Clostridiales.Clostridiaceae | CR | 4.455754 | 0.049535 |