

**Supplementary Table S3**—Results of the generalized linear model built to explore factors associated with changes in bound calcium (tCa – iCa) concentration in 161 chelonians, with habitus included instead of species.

|                       | <b>Change in bound calcium (mmol/L)</b> | <b>Lower 95% CI</b> | <b>Upper 95% CI</b> | <b>P Value</b> |
|-----------------------|---|---------------------|---------------------|----------------|
| Albumin               | 0.48                                    | 0.31                | 0.66                | <0.001         |
| Sex                   |   |                     |                     |                |
| Female                | 0.53                                    | 0.25                | 0.8                 | <0.001         |
| Male                  | 0.05                                    | -0.26               | 0.35                | 0.758          |
| Unknown               | 1                                       |                     |                     | .              |
| Habitus               |   |                     |                     |                |
| Aquatic               | 0.51                                    | 0.26                | 0.75                | <0.001         |
| Terrestrial           | 1                                       |                     |                     |                |
| Organ system affected |   |                     |                     |                |
| Endocrine             | -0.65                                   | -1                  | -0.29               | <0.001         |
| GI/liver              | -0.4                                    | -0.79               | -0.02               | 0.042          |
| Other systems         | -0.35                                   | -0.72               | 0.02                | 0.066          |
| Renal/Urinary         | -0.46                                   | -0.86               | -0.05               | 0.028          |
| Respiratory           | -0.71                                   | -1.16               | -0.27               | 0.002          |
| Skin/Musculoskeletal  | -0.71                                   | -1.06               | -0.36               | <0.001         |
| Reproductive          | 1                                       |                     |                     | .              |