

Table S1. UVI recordings taken during the UV-carotenoid study

| Tank | Treatment | Month 0 | | | | Month 3 | | | | Month 6 | | | | Month 9 | | | |
|------|--------------|---------|-----|-----|------|---------|-----|-----|------|---------|-----|-----|------|---------|-----|-----|------|
| | | A | B | C | Mean |
| 1 | Standard/-UV | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | Standard/+UV | 1.2 | 1.0 | 1.1 | 1.1 | 0.9 | 0.7 | 0.6 | 0.7 | 1.0 | 0.8 | 1.0 | 0.9 | 0.7 | 0.4 | 0.6 | 0.6 |
| 3 | Enhanced/-UV | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 |
| 4 | Enhanced/+UV | 1.0 | 0.9 | 1.0 | 1.0 | 0.9 | 0.8 | 0.7 | 0.8 | 0.9 | 0.6 | 0.9 | 0.8 | 0.7 | 0.5 | 0.4 | 0.5 |
| 5 | Standard/-UV | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 |
| 6 | Standard/+UV | 0.8 | 0.8 | 0.9 | 0.8 | 0.9 | 0.6 | 1.0 | 0.8 | 0.9 | 0.8 | 0.9 | 0.9 | 0.6 | 0.5 | 0.6 | 0.6 |
| 7 | Enhanced/-UV | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 8 | Enhanced/+UV | 0.9 | 0.8 | 0.9 | 0.9 | 0.7 | 0.7 | 0.5 | 0.6 | 1.0 | 0.7 | 1.0 | 0.9 | 0.8 | 0.7 | 0.8 | 0.8 |
| 9 | Standard/-UV | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 |
| 10 | Standard/+UV | 0.8 | 0.7 | 0.8 | 0.8 | 0.7 | 0.7 | 0.5 | 0.6 | 0.9 | 0.7 | 0.9 | 0.8 | 0.5 | 0.3 | 0.5 | 0.4 |
| 11 | Enhanced/-UV | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| 12 | Enhanced/+UV | 1.1 | 1.1 | 1.2 | 1.1 | 0.9 | 0.9 | 0.7 | 0.8 | 1.0 | 0.7 | 0.9 | 0.9 | 0.7 | 0.4 | 0.5 | 0.5 |
| Mean | Standard/-UV | | | | 0.04 | | | | 0.04 | | | | 0.06 | | | | 0.06 |
| | Standard/+UV | | | | 0.90 | | | | 0.73 | | | | 0.88 | | | | 0.52 |
| | Enhanced/-UV | | | | 0.04 | | | | 0.07 | | | | 0.07 | | | | 0.04 |
| | Enhanced/+UV | | | | 0.99 | | | | 0.76 | | | | 0.86 | | | | 0.61 |

Table S2. Nutrobal ingredients

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|--|--|
| Calcium carbonate, Dextrose, Dicalcium phosphate, Sodium chloride | |
| ADDITIVES PER KG: | |
| Aminoacids: | |
| L-lysine-monohydrochloride 3.2.3 | |
| mg 79,000 | |
| Vitamins: | |
| Vitamin A 3a672a | |
| IU 600,000 | |
| Vitamin D3 | |
| IU 180,000 | |
| Vitamin E 3a700 | |
| IU 23,500 | |
| Choline chloride 3a890 | |
| mg 6,000 | |
| Vitamin C 3a300 | |
| mg 3,000 | |
| Niacinamide 3a315 | |
| mg 3,000 | |
| Vitamin B2 | |
| mg 720 | |
| Calcium D-Pantothenate 3a841 | |
| mg 651.9 | |
| Vitamin B1 3a821 | |
| mg 600 | |
| Vitamin B6 3a831 | |
| mg 360 | |
| Folic acid 3a316 | |
| mg 180 | |
| Vitamin K3 3a711 | |
| mg 50 | |
| Vitamin B12 | |
| mg 0.145 | |
| Biotin 3a880 | |
| mg 1.2 | |
| Vitamin D3 | |
| IU 180,000 | |
| Traces elements: | |
| Coated granulated cobalt (II) carbonate 3b304 (Cobalt) | |
| mg 50 | |
| Calcium iodate anhydrous 3b202 (Iodium) | |
| mg 50 | |
| Sodium selenito 3b801 (Selenium) | |
| mg 5 | |
| Copper(II) sulphate pentahydrate 3b405 (Copper) | |
| mg 751 | |
| Iron(II) sulphate monohydrate 3b103 (Iron) | |
| mg 3,000 | |
| Manganous sulphate monohydrate 3b503 (Manganese) | |
| mg 1,750 | |
| Zinc sulphate monohydrate 3b605 (Zinc) | |
| mg 3,000 | |
| Anti cacking agents: Silicic acid, precipitated and dried E551a mg 1,000 | |
| Calcium 20.8% - Sodium 0.22% - Phosphorous 0.45% | |

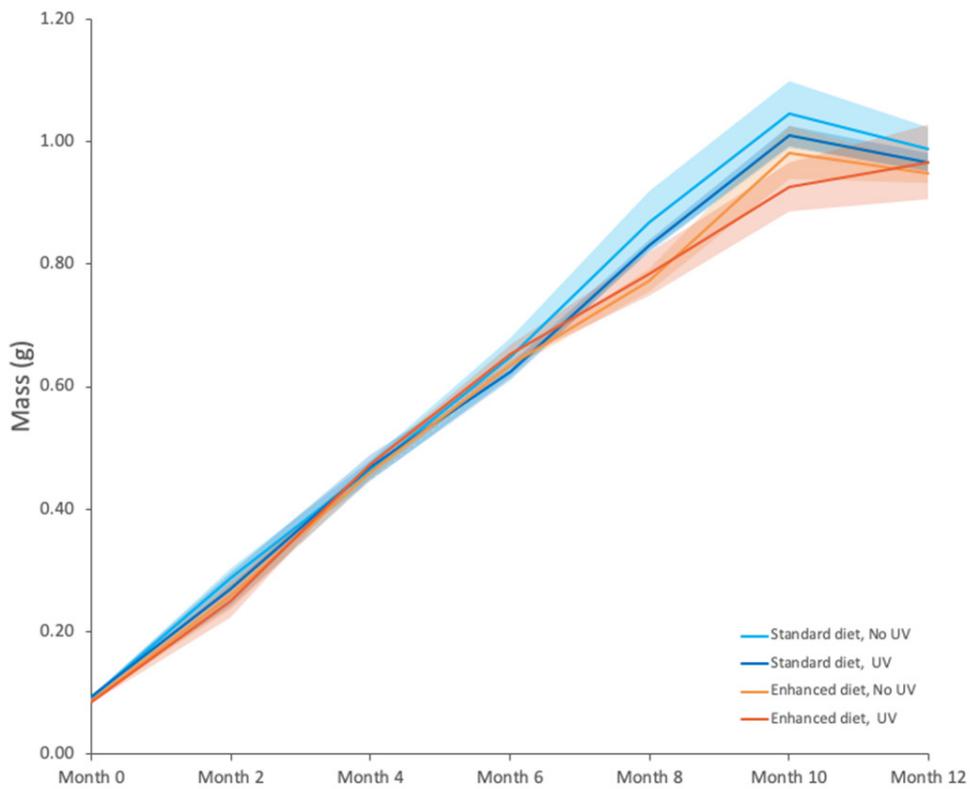


Figure S1. UV-carotenoid study: Mass

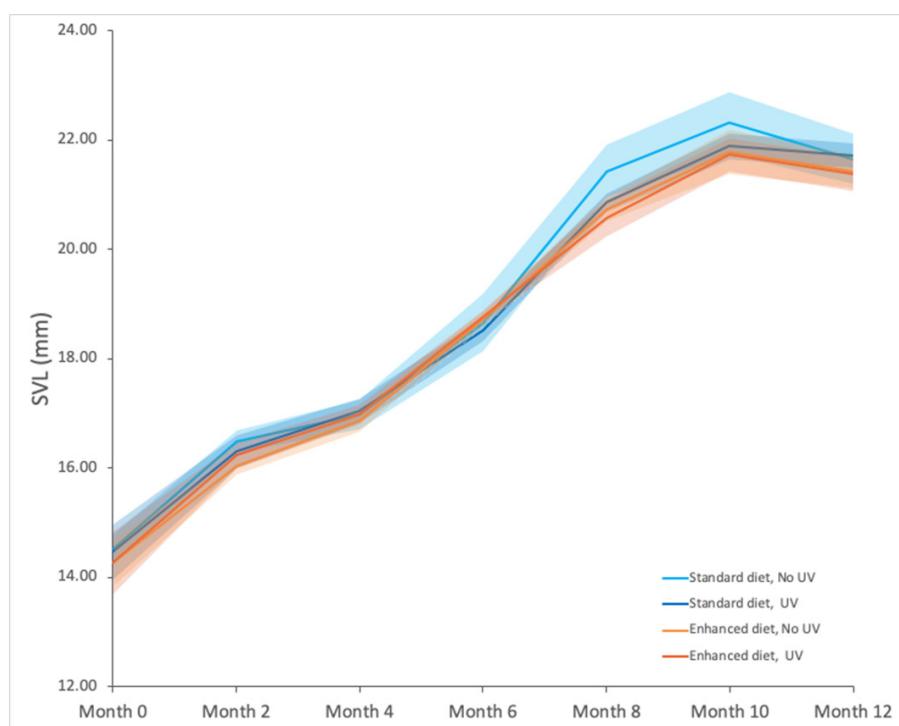


Figure S2. UV-carotenoid study: Snout to Vent Length (SVL)

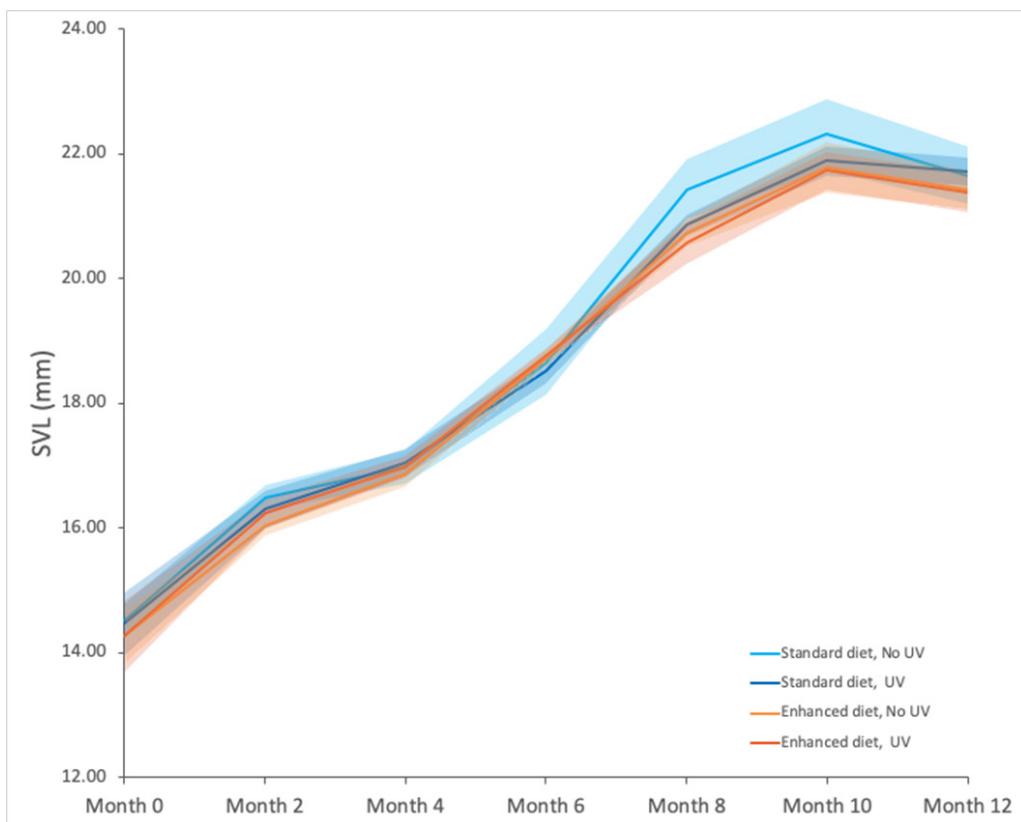


Figure S3. Carotenoid profile: Mass

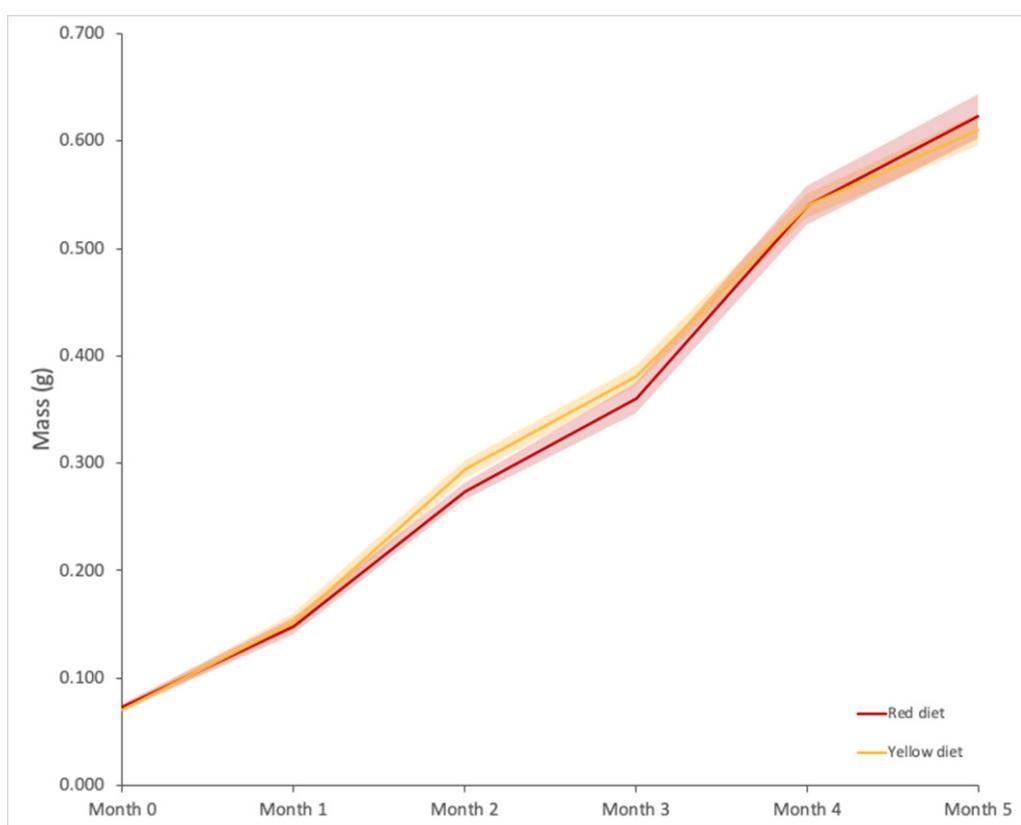


Figure S4. Carotenoid profile: snout-to-vent length (SVL)