**Supplemental Table 2. Effects of urophysectomy in teleosts**

Abbreviations: ACTH, adrenocorticotropin; FW, freshwater; POA, preoptic area; PTHrP, parathyroid hormone-related protein; SW, seawater; UI, urotensin I; UII, urotensin II.

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| **Species** | **Observations** | **References** |
| Loach *Misgurnus anguillicaudatus* | Prevention of the decrease in neurosecretory material in the neurohypophysis observed after transfer in hypertonic milieu | [296] |
| Mozambique tilapia *Oreochromis mossambicus* | Higher mortality, body weight loss, serum chloride and stainable POA cells after exposition to SW (1.7% NaCl) for 3 days  Depletion of neurosecretion in urophysis and neurohypophysis after exposition to SW (1.7% NaCl) for 3 days  No change in hematocrit, plasma sodium and calcium under different external environments  No change of plasma osmotic and ionic concentrations in SW fish adapted to brackish water for 6h  Increased plasma sodium, potassium and calcium and osmolality in FW fish adapted to brackish water for 6h | [297]  [316]  [312] |
| Goldfish *Carassius auratus* | Higher mortality and body weight loss after exposition to SW  Lower plasma sodium and diuresis  Increased hypothalamic UI, pituitary ACTH content and plasma cortisol levels | [297]  Turtle 1974 cited in [310]  [295] |
| Northern plain killifish *Fundulus kansae* | No change in serum or urine sodium levels nor in urine flow | [316] |
| Japanese eel *Anguilla japonica* | No change in the increase of water flux from isolated intestine and gills of eels adapted to SW  No change in the decrease of rate of penetration of sodium from isolated gills of eels adapted to SW | [318] |
| European eel *Anguilla anguilla* | Marked loss of urinary electrolytes and renal electrolyte retention  No change in blood electrolyte composition | [454] |
| Stickleback *Gasterosteus aculeatus* | Higher mortality during osmotic challenge | [314] |
| Starry flounder *Platichthys stellatus* | No change in water and sodium movements in the urinary bladder | [313] |
| White sucker *Catostomus commersoni* | Decreased serum sodium  Increased hypothalamic UI immunoreactivity | Gill and Lederis cited in [93]  [343] |
| Longjaw mudsucker *Gillichthys mirabilis* | No change in hematocrit and plasma electrolyte concentrations | [310] |
| Common roach *Rutilus rutilus* | Retarded growth – Enlarged kidneys and mesonephros | [285] |
| Eye spot toothcarp *Poecilia vivipara*  Guppy *Poecilia reticulata* | No change in urinary bladder water movement  No change in the timing of parturition and the number of viable pregnancies | [317]  Thian and Munro cited in [291] |
| Snakehead *Ophiocephalus maculatus* | No change in plasma electrolyte concentrations in SW-adapted fish  Decreased plasma sodium and chloride in FW-adapted fish | [455] |
| European flounder *Platichthys flesus* | Lower plasma UII  Higher pituitary UII  Lower plasma PTHrP  Higher plasma total calcium | [135]  [228] |