

Figure S1. Schematic diagram illustrating the position of the juvenile caiman within the water column. Angles are in relation to the surface of the water.

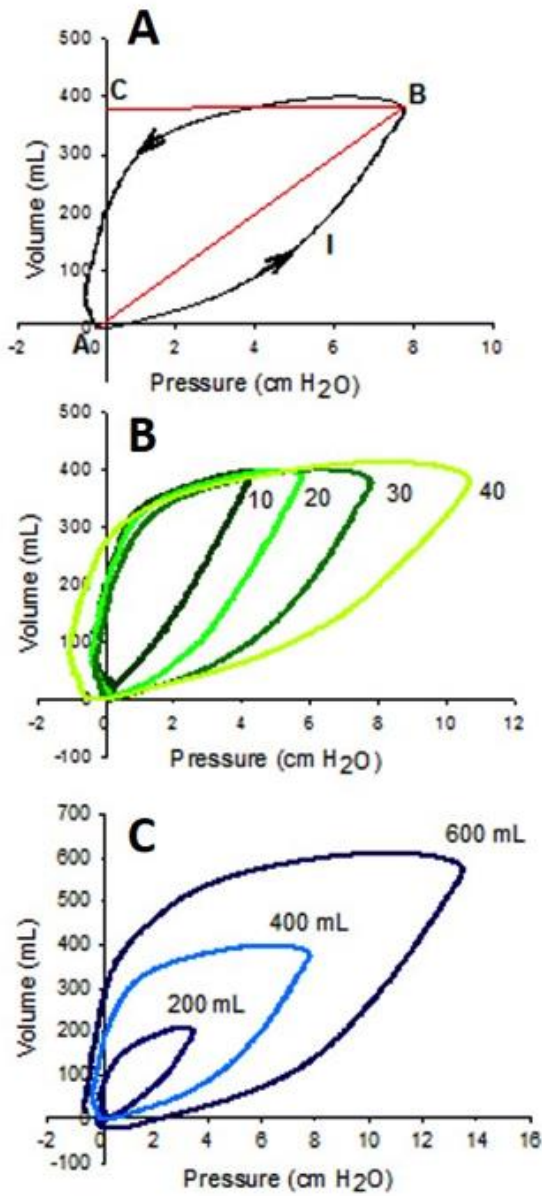


Figure S2. Schematic diagrams of the pressure-volume relationships during a ventilator cycle of an intact respiratory system. A illustrates the areas of the curve used for work calculations (see text for explanation). B and C illustrate the effect of increasing f_R and V_T , respectively, on intratracheal pressure.

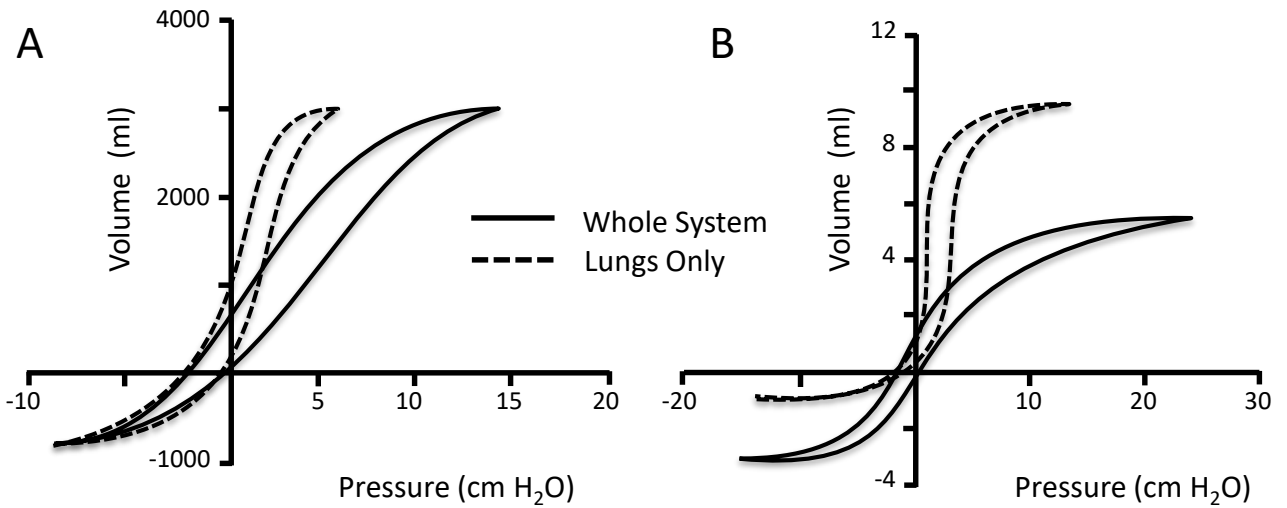


Figure S3. Static Pressure-volume curves of the intact system (solid lines) and the isolated lungs (broken lines) in adult (A) and juvenile (B) caiman.



Figure S4. Photos of juvenile caiman floating with their bodies at different angles to the water surface.

		Weight kg	Temperature	VT ml/kg	f_R' /min
Munns et al, 2012	<i>Crocodylus porosus</i>	0.98	30	16	11
Munns et al 1998	<i>Crocodylus porosus</i>	0.2 - 0.6	28-30	20	31
Farmer and Carrier 2000	<i>Alligator mississippiensis</i>	1.34	30	22	7
Naifeh et al., 1970	<i>Caiman sclerops</i>	0.68	23-25	12.2	8
	<i>Alligator mississippiensis</i>	0.72	23-25	7.8	7
Tattersall et al 2006	<i>Caiman latirostris</i>	1.56	25	9.3	8
Glass and Johansen 1979	<i>Crocodylus niloticus</i>	5.0	25	11	10

Table S1. Tidal volume and instantaneous breathing frequencies of various crocodylian species taken from the literature



Figure S5. Thermal panting (gular flutter) in a crocodilian