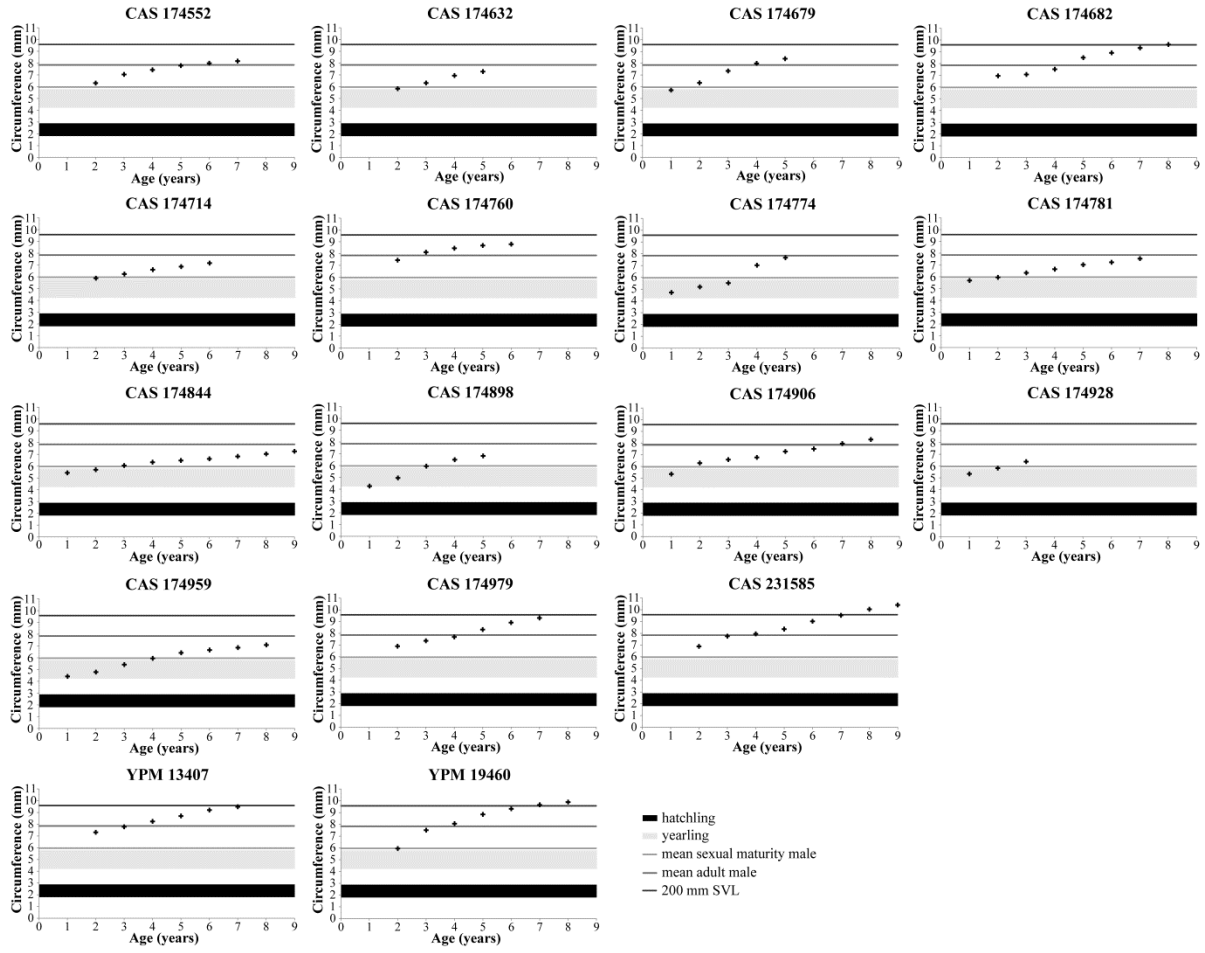
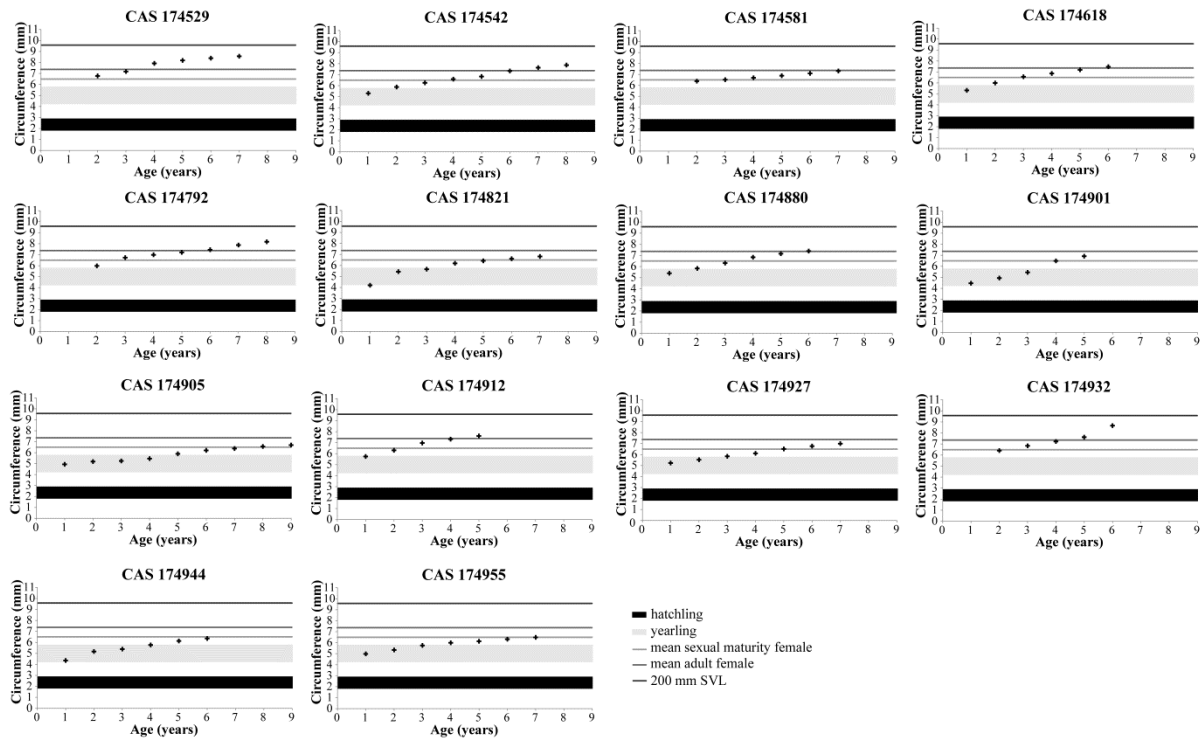
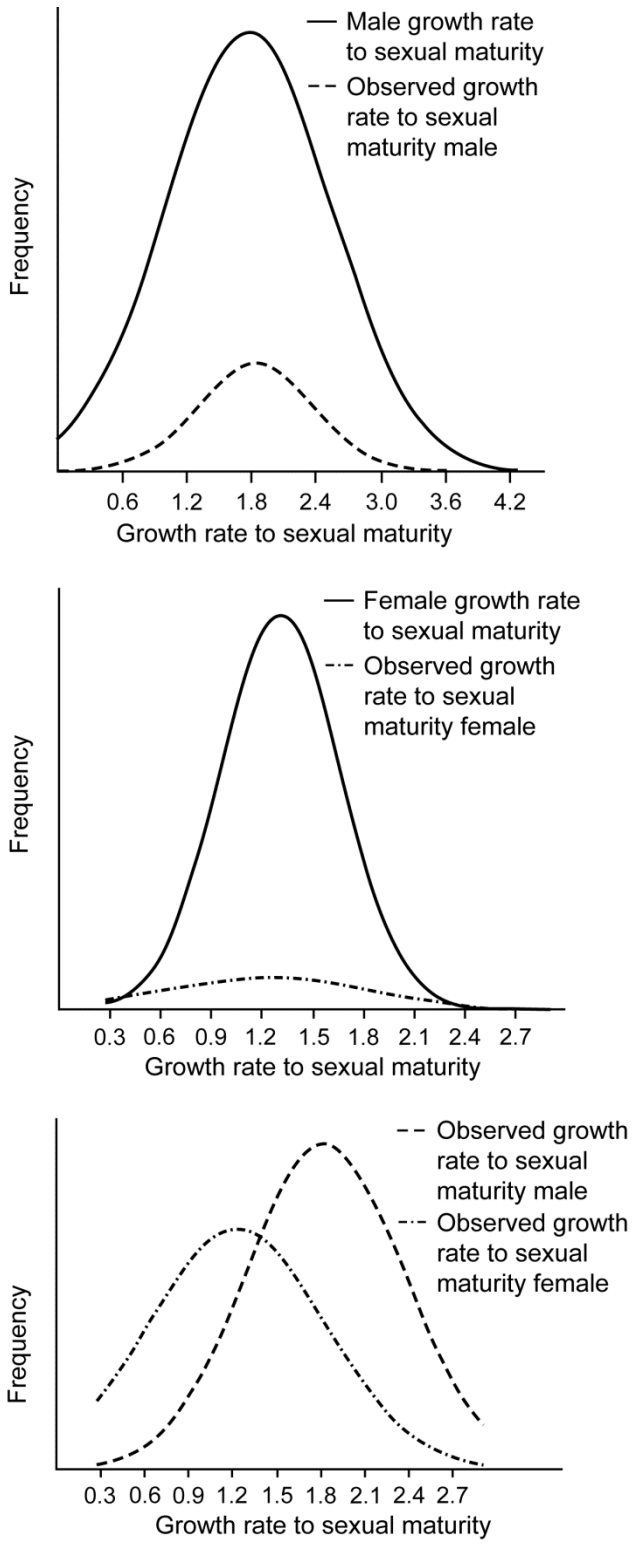
Supplementary figures and tables.



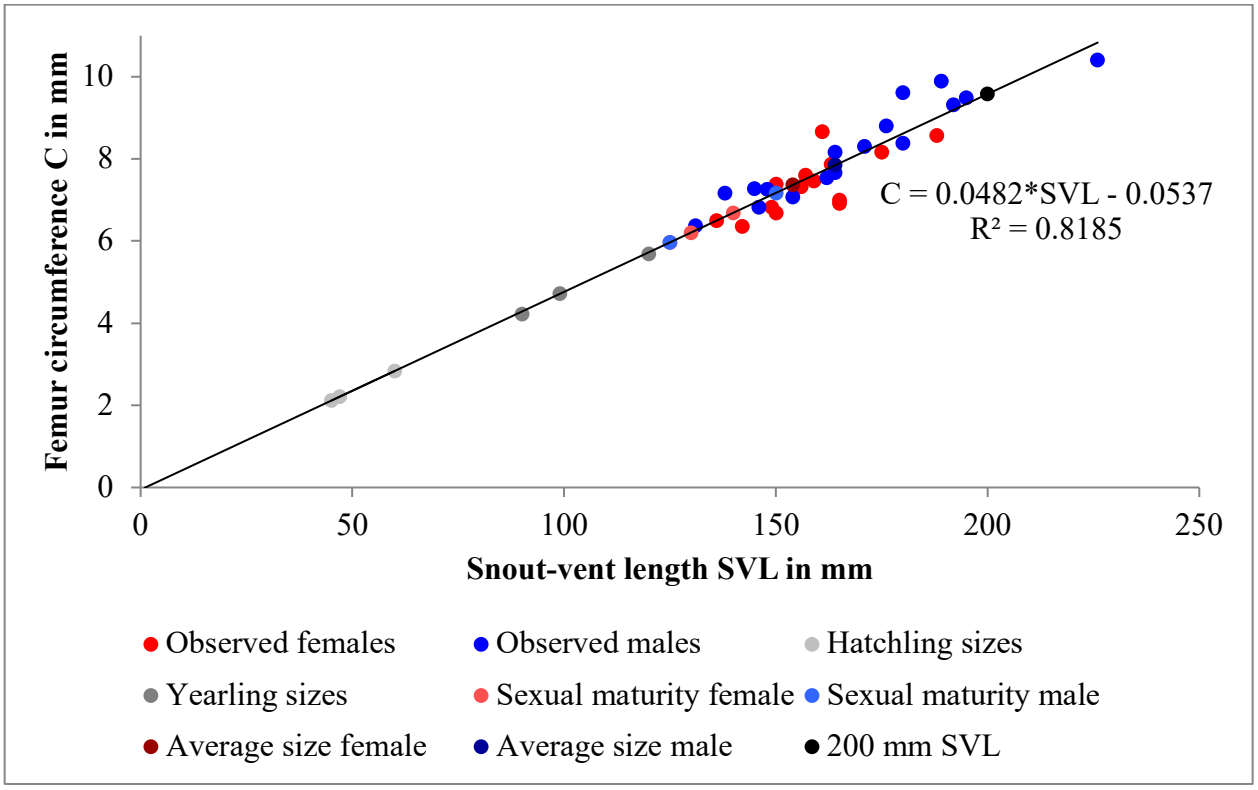
Supplementary Figure 1. Overview of growth in male *Sauromalus ater*. Resorption of the first LAG is common, especially among the specimens that reached larger than average body size. Specimens either approach asymptotic size around the average, or surpass this benchmark value. For simplicity, only the mean value for sexual maturity for males is shown.



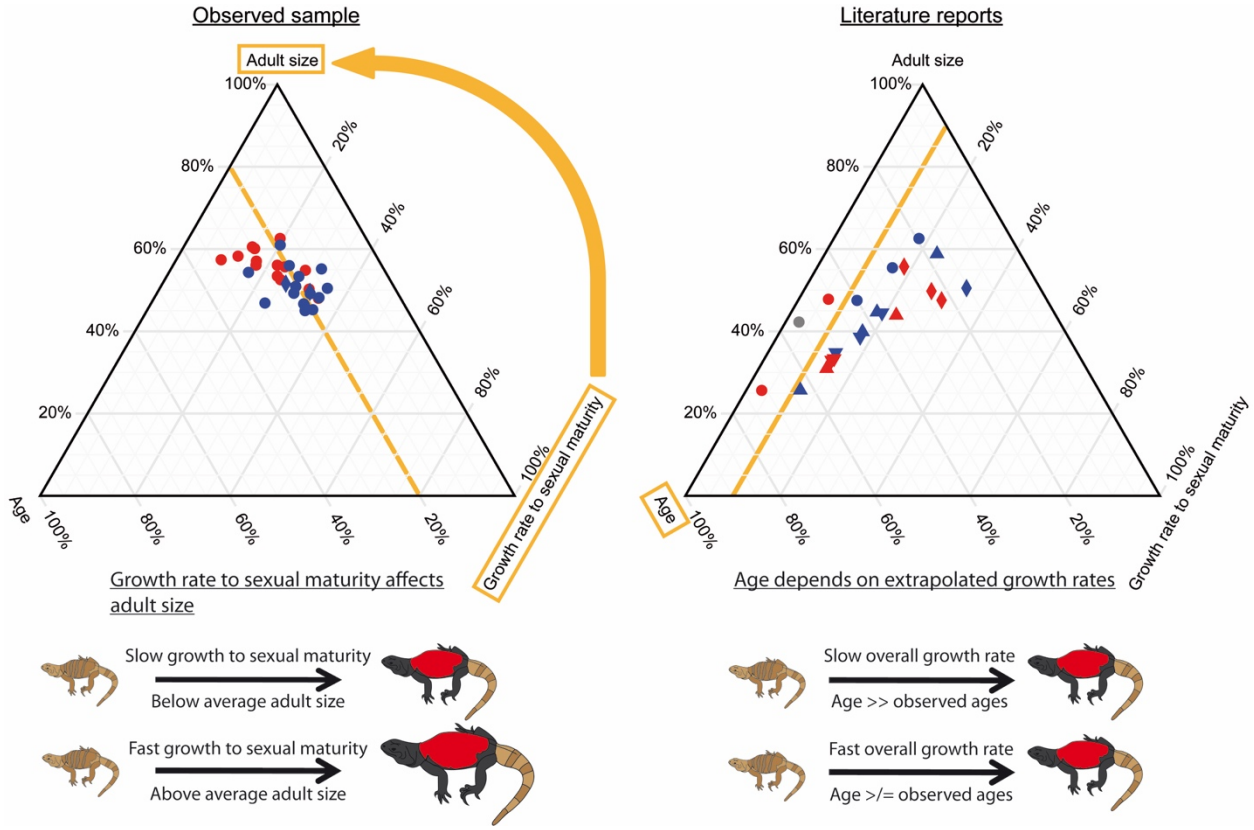
Supplementary Figure 2. Overview of growth in female *Sauromalus ater*. CAS 174932 shows unusually large femur size for an individual of its size (161 mm SVL). Resorption of the first LAG is common in specimens that exceeded average adult size.



Supplementary Figure 3. Comparison of growth rate to sexual maturity between male and female *Sauromalus ater*. On average, males grow more rapidly to sexual maturity.



Supplementary Figure 4. Linear regression of observed relationships between femur circumference C and snout-vent length SVL. The regression equation was used to calculate life-history benchmarks in Table 1.



Supplementary Figure 5. Social media figure. This figure summarizes the main results from this study; observed ontogenetic benchmarks (age, final adult size, and growth rate to sexual maturity) are compared to literature records of the same benchmarks, and the main contributing axis is highlighted (orange dashed lines). In the observed sample, growth to sexual maturity influences adult body size, while age plays a minor role in the ternary plot. Literature reports, on the other hand, typically overestimate age, which is the dominant parameter in the plot, while adult size and growth to sexual maturity play minor roles.

Supplementary Table 1. Results of similarity tests (t-test) between observed size of first LAG and simulated yearlings based on reported yearling sizes.

	t	p-value
simulated yearling vs. observed first LAG	4.1436	$6*10^{-5}$
simulated yearlings vs. first LAG within yearling range	-0.43284	0.67
simulated yearlings vs. first LAG larger than yearling range	-6.8078	0
first LAG within vs. first LAG larger than yearling range	-7.709	0
male vs. female yearlings	0.46071	0.65

Supplementary Table 2. Results of critical bandwidth test. Critical bandwidth is 0.199.

Mode	1	2	3
Mode location (mm)	4.36	5.37	6.88
Estimated density value	0.3	0.5	0.26

Supplementary Table 3. Growth rates seen in *Sauromalus ater* (to size at previous LAG, in %).

	Specimen-#	**1**		**2**		**3**	**4**	**5**	**6**	**7**	**8**	**9**
		Min	**Max**	**Min**	**Max**							
Male	13407	100	100	28	71	6	6	6	6	3		
	19460	100	100	4	39	26	7	10	5	4	2	
	174552	100	100	10	47	12	6	5	3	2		
	174632	100	100	2	36	8	10	5				
	174679	100	100	11	11	16	9	5				
	174682	100	100	21	62	2	6	13	5	5	3	
	174714	100	100	3	37	6	6	4	4			
	174760	100	100	30	74	9	4	3	1			
	174774	66	124	10	10	6	27	9				
	174781	100	169	5	5	6	5	6	3	4		
	174844	91	157	5	5	6	5	2	2	3	3	3
	174898	50	102	16	16	20	9	5				
	174906	88	153	18	18	5	3	8	3	6	4	
	174928	87	152	9	9	10						
	174959	55	109	8	8	13	10	8	4	3	3	
	174979	100	100	21	61	7	5	8	7	4		
	231585	100	100	20	61	13	3	5	8	6	6	4
Female	174529	100	100	18	58	6	10	3	2	2		
	174542	87	152	11	11	7	5	4	7	4	3	
	174581	100	100	12	49	2	3	3	3	3		
	174618	87	152	13	13	10	5	5	4			
	174792	100	100	4	40	13	4	3	3	6	4	
	174821	48	99	29	29	4	10	4	3	3		
	174880	90	156	8	8	8	8	5	3			
	174901	57	111	11	11	11	19	7				
	174905	74	134	5	5	1	4	8	5	3	3	1
	174912	100	100	10	10	10	5	4				
	174927	84	148	6	6	6	5	7	4	3		
	174932	100	100	12	50	7	6	5	14			
	174944	53	106	19	19	4	7	6	4			
	174955	75	136	7	7	8	4	2	3	3		

Supplementary Table 4. Correlation of final body size and age through age 5. Correlation factor, *r*, and adjusted coefficient of determination, r^2, are highlighted in bold when statistically significant.

	Season 1		Season 2		Season 3		Season 4		Season 5	
	r	r^2	*r*	r^2	*r*	r^2	*r*	r^2	*r*	r^3
Sauromalus ater	**0.44**	**0.16**	**0.64**	**0.39**	**0.7**	**0.47**	**0.74**	**0.53**	**0.81**	**0.64**
S. ater male	0.39	0.1	**0.66**	**0.39**	**0.74**	**0.52**	**0.76**	**0.54**	**0.79**	**0.59**
S. ater female	0.51	0.2	0.52	0.21	0.52	0.21	**0.63**	**0.34**	**0.76**	**0.54**

Supplementary Table 5. Results of similarity tests (t-test) for growth rates to sexual maturity. Statistical significance is highlighted in bold.

	t	p-value
male vs. female	2.9437	**0.006**
simulated vs. observed male	-0.35646	0.72
simulated vs. observed female	-0.71251	0.48
male final SVL below vs. above average	-3.8583	**0.002**
female final SVL below vs. above average	-2.6462	**0.02**