

**SUPPLEMENTARY FILE 1**

**corresponding to:**

**The genome sequence of the corn snake  
(*Pantherophis guttatus*), a valuable resource for  
EvoDevo studies in squamates**

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**Supplementary table 1.** *Hox* genes identified in the *Pantherophis guttatus* draft genome. Grey boxes highlight genes located on the same scaffold.

<b>Hox gene</b>	<b>Ensembl v77 <i>Anolis carolinensis</i> protein</b>	<b>NCBI <i>Python molurus</i> protein</b>	<b><i>Pantherophis guttatus</i> scaffold</b>	<b><i>Pantherophis guttatus</i> scaffold length</b>	<b>MAKER2 genome annotation</b>	<b><i>Ophiophagus hannah</i> genome scaffold</b>
HOXA1	ENSACAP00000010763	XP_007434073.1	scaffold253936	12440	Yes (full)	AZIM01000260.1
HOXA2	ENSACAP00000010237	XP_007434074.1	scaffold288439	1600	Possibly false annotation	
			C32385944	452		
HOXA3	ENSACAP00000010220	XP_007434075.1	scaffold252319	7728	Not annotated	
		XP_007434076.1				
HOXA4	ENSACAP00000010189	XP_007434078.1	scaffold128090	7763	Not annotated	
HOXA5	ENSACAP00000010179	XP_007434077.1	scaffold297175	13792	Yes (partial)	
			scaffold253925	4590		
HOXA6like	-	XP_007434079.1	scaffold253925	4590	Not annotated	
		XP_007428294.1				
HOXA7	ENSACAP00000010136	XP_007428291.1	scaffold258986	9931	Not annotated	
HOXA9	ENSACAP00000007125	XP_007428290.1	scaffold372293	2238	Not annotated	
			scaffold301873	2857		
HOXA10	ENSACAP00000020621	XP_007428293.1	scaffold259851	2726	Not annotated	
HOXA11	ENSACAP00000010103	XP_007428289.1	scaffold262509	3334	Not annotated	
HOXA13	ENSACAP00000010093	XP_007428288.1	scaffold304347	1300	Not annotated	
			scaffold258057	7234		

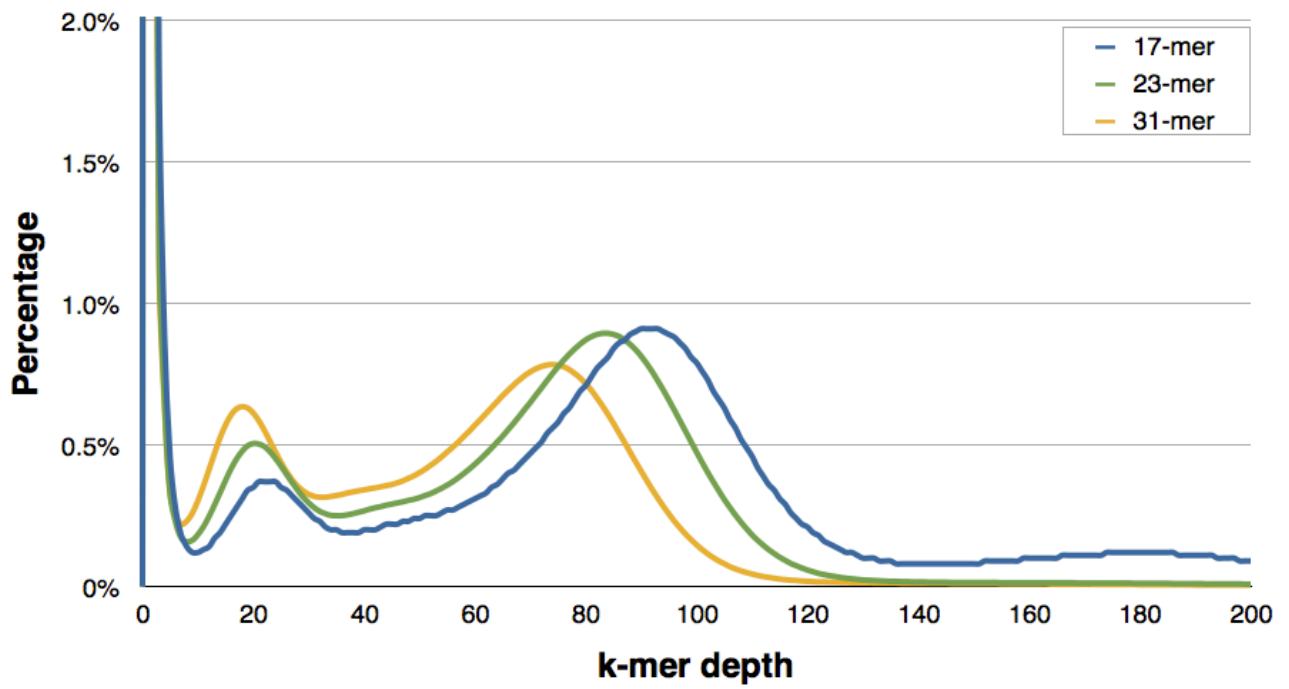
HOXB1	ENSACAP00000006374	XP_007434278.1	scaffold261625	13812	Yes (partial)	AZIM01000025.1
	ENSACAP000000023285					
HOXB2	ENSACAP00000006369	XP_007434275.1	scaffold268453	14786	Not annotated	
	ENSACAP000000011716		scaffold474616	967		
HOXB3	ENSACAP00000006361	XP_007434274.1	scaffold272555	7562	Not annotated	
HOXB4	ENSACAP00000006345	XP_007434277.1	scaffold387162	1537	Possibly false annotation	
			scaffold317625	384		
HOXB5	ENSACAP00000006336	XP_007434276.1	scaffold422757	701	Not annotated	
HOXB6	ENSACAP00000006322	XP_007434273.1	scaffold249236	2759	Not annotated	
HOXB7	ENSACAP00000006314	XP_007434272.1	scaffold346393	2025	Not annotated	
HOXB8	ENSACAP00000006270	XP_007428545.1	scaffold421176	1852	Not annotated	
		XP_007428546.1	scaffold476641	1137		
		XP_007428547.1				
HOXB9	ENSACAP00000006259	XP_007428548.1	scaffold398546	422	Not annotated	
			scaffold268054	2994		
			C31216379	273		
HOXB13	ENSACAP00000006249	XP_007428559.1	scaffold255071	18097	Not annotated	

HOXC3	ENSACAP00000019311	-	scaffold158523	9039	Not annotated	AZIM01001075.1
	ENSACAP00000018981					
HOXC4	ENSACAP00000010731	XP_007423915.1	scaffold272534	23207	Yes (partial)	
			scaffold299918	1044		
HOXC5	ENSACAP00000010719	XP_007423914.1	scaffold416002	6292	Not annotated	
			scaffold259931	4208		
HOXC6	ENSACAP00000010695	XP_007423916.1	scaffold416002	6292	Not annotated	
HOXC8	ENSACAP00000010686	XP_007443209.1	scaffold411951	3573	Not annotated	
			scaffold43295	7051		
HOXC9	ENSACAP00000010675	XP_007443208.1	scaffold384716	8114	Not annotated	
HOXC10	ENSACAP00000020779	XP_007443210.1	scaffold98006	11170	Yes (full)	
		XP_007438849.1				
HOXC11	ENSACAP00000010636	XP_007438846.1	C33080020	699	Not annotated	
			scaffold392475	2207		
HOXC12	ENSACAP00000010624	XP_007438847.1	scaffold102209	20184	Yes (full)	AZIM01000464.1
HOXC13	ENSACAP00000010617	XP_007438848.1	scaffold102209	20184	Yes (full)	

HOXD1	ENSACAP00000006394	XP_007425535.1	scaffold271795	5724	Not annotated	AZIM01000055.1
HOXD3	ENSACAP00000017628	XP_007425534.1	scaffold34132	12914	Yes (partial)	
HOXD4	ENSACAP00000017632	XP_007425528.1	scaffold405669	7536	Not annotated	
HOXD8	-	XP_007425533.1	scaffold426590	3099	Not annotated	
			C31330140	283		
HOXD9	ENSACAP00000017633	-	scaffold426590	3099	Not annotated	
HOXD10	ENSACAP00000017636	XP_007425527.1	scaffold280189	12333	Yes (partial)	
HOXD11	ENSACAP00000007113	XP_007425532.1	scaffold280189	12333	Yes (partial)	
			scaffold246172	1050		
HOXD12	ENSACAP00000017638	-	-	-	-	
HOXD13	ENSACAP00000017639	XP_007425531.1	scaffold159723	8339	Possibly false annotation	
			scaffold420450	887		

**Supplementary table 2.** Number of variants and corresponding scaffolds at the different steps of the SNP calling approach. The initial variants obtained with FreeBayes correspond to multiallelic SNPs and InDels. For the megablast results, we provide in parenthesis the number of database scaffolds/chromosomes that match at least two *Pantherophis guttatus* scaffolds.

	<b>SNP calling filtering</b>	
	No. of variants	No. of <i>P. guttatus</i> scaffolds
Total number of variants obtained from FreeBayes	13,017,595	296,817
Biallelic SNPs after filtering the parental libraries	1,384,298	222,764
Biallelic SNPs after filtering all the family libraries	100,882	43,951
Co-segregating informative SNPs	19,104	4,740
Megablast hits against <i>Anolis carolinensis</i> genome	5,273	751 (24)
Megablast hits against <i>Gallus gallus</i> genome	2,530	291 (13)
Megablast hits against <i>Ophiophagus hannah</i>	18,930	4,615 (530)
Megablast hits against <i>Python molurus</i>	16,528	3,612 (449)



**Supplementary Figure 1. Distribution of the 17, 23 and 31-mers depth in the raw sequencing reads of all the libraries.**