Supplementary Materials: Distribution of Secretory Phospholipases A_2 in the Venoms of Afro-Asian Cobras (Subgenus: *Naja*, *Afronaja*, *Boulengerina* and *Uraeus*)

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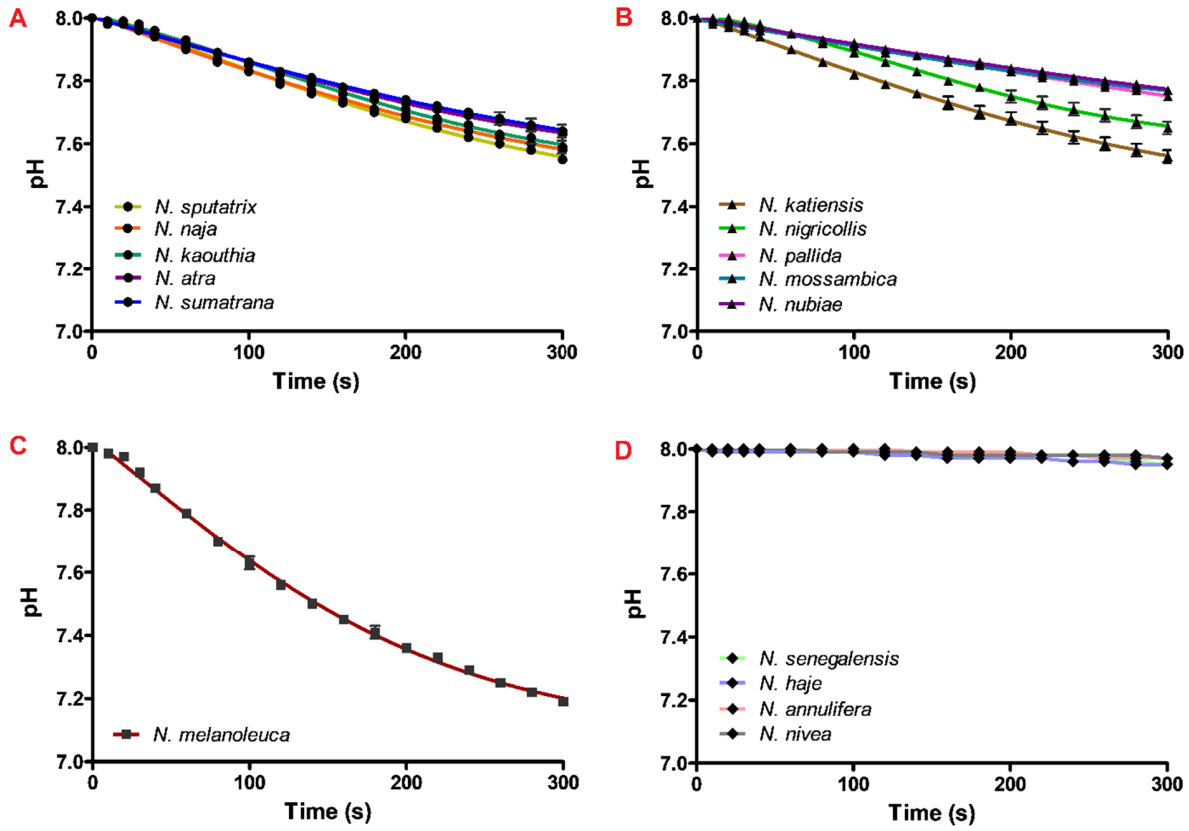

Figure 1. Time-dependent pH changes in acidimetric assay for the venoms of four subgenera of cobra. (**A**) *Naja*, (**B**) *Afronaja*, (**C**) *Boulengerina*, and (**D**) *Uraeus*. Hydrolysis of phospholipids by phospholipase A_2 released fatty acids that reduced the suspension pH time-dependently.

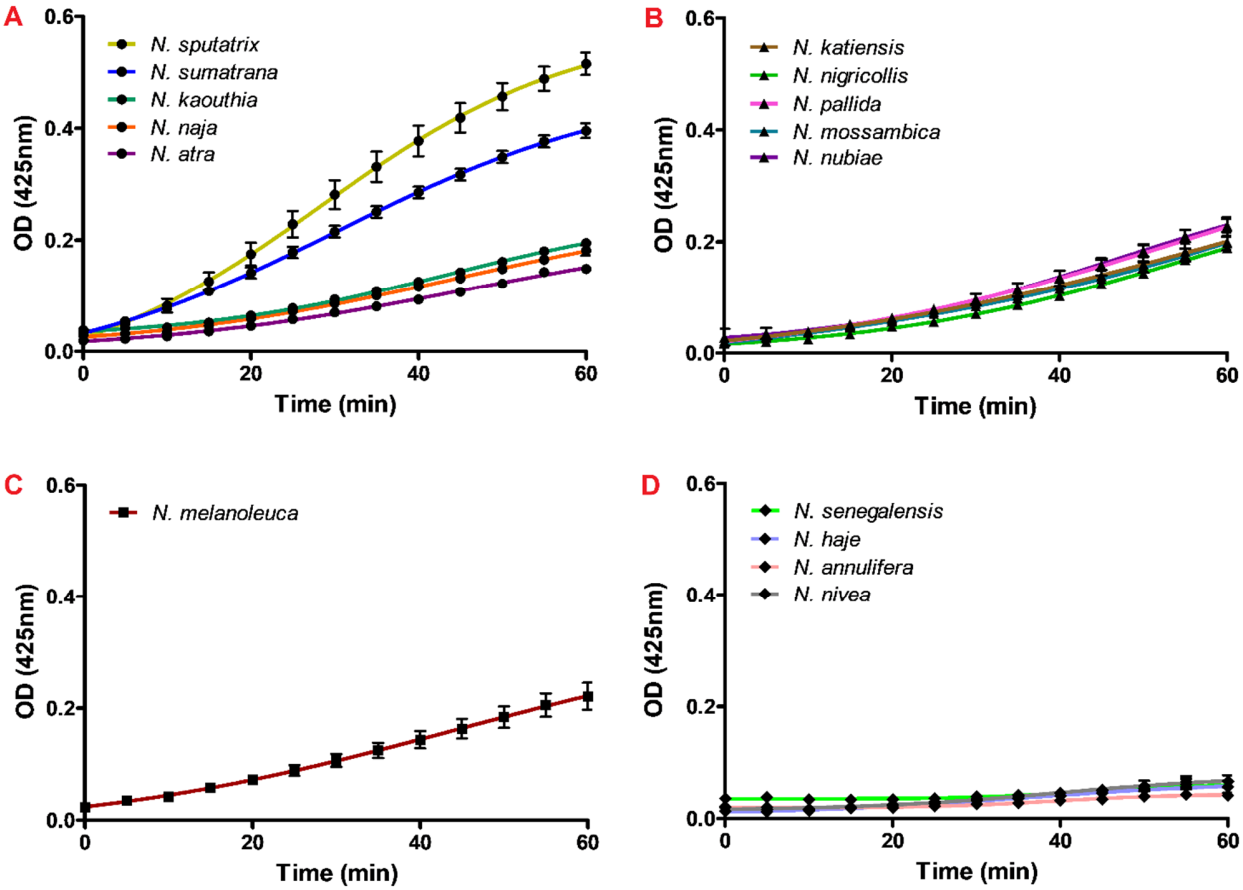

Figure S2. Time-dependent absorbance changes in colorimetric assay for the venoms of four subgenera of cobra. (**A**) *Naja*, (**B**) *Afronaja*, (**C**) *Boulengerina*, and (**D**) *Uraeus*. Changes in absorbance were due to the hydrolysis of the synthetic chromogenic substrate (NOBA), corresponding to the enzymatic activity of phospholipases A_2 in the venoms.

Table S1. Relative abundances of snake venom phospholipase A2 of 12 cobra species (Genus: *Naja*).

Subgenus of *Naja*	Cobra Species	Source	Relative Abundance of PLA2 (%)	Method of Protein Identification	References
Naja	*Naja naja*	Latoxan (Pakistan)	14.24	Bottom up proteomic: RP-HPLC, in-gel digestion, MALDI TOF/TOF and nano-ESI-LCMS/MS Abundance calculation: gel densitometry x peak area under curve of chromatographic fraction	[1]
	Naja kaouthia	Pooled venom from Thailand	13.5	Bottom up proteomic: RP-HPLC, in-gel digestion, MALDI TOF/TOF and Orbitrap fusion mass spectrometry Abundance calculation: gel densitometry x peak area under curve of chromatographic fraction	[2]
	Naja sputatrix	Latoxan (Indonesia)	31.24	Bottom up proteomic: RP-HPLC, in-solution digestion, nano-ESI-LCMS/MS Abundance calculation: mean spectral intensity x peak area under curve of chromatographic fraction	[3]
	Naja atra	Venom from CDC, Taiwan	14.43	Bottom up proteomic: RP-HPLC, in-solution digestion, nano-ESI-LCMS/MS Abundance calculation: mean spectral intensity x peak area under curve of chromatographic fraction	[4]
	Naja sumatrana	Pooled venom from Malaysia	32.3	Bottom up proteomic: RP-HPLC, in-solution digestion, nano-ESI-LCMS/MS Abundance calculation: mean spectral intensity x peak area under curve of chromatographic fraction	[5]
Afronaja	*Naja nigricollis*	Pooled venom from Nigeria	21.9	Bottom up proteomic: RP-HPLC, N-terminal sequencing, SDS-PAGE, in-gel digestion, ESI-MS Abundance calculation: gel densitometry x peak area under curve of chromatographic fraction	[6]
	Naja pallida	Latoxan (Kenya)	30.1	Bottom up proteomic: RP-HPLC, N-terminal sequencing, SDS-PAGE, in-gel digestion, ESI-MS Abundance calculation: gel densitometry x peak area under curve of chromatographic fraction	
	Naja nubiae	Latoxan North Africa)	26.4	Bottom up proteomic: RP-HPLC, N-terminal sequencing, SDS-PAGE, in-gel digestion, ESI-MS Abundance calculation: gel densitometry x peak area under curve of chromatographic fraction	
	Naja mossambica	Latoxan (Tanzania)	27.1	Bottom up proteomic: RP-HPLC, N-terminal sequencing, SDS-PAGE, in-gel digestion, ESI-MS Abundance calculation: gel densitometry x peak area under curve of chromatographic fraction	
	Naja katiensis	Latoxan (Burkina Faso)	29.0	Bottom up proteomic: RP-HPLC, N-terminal sequencing, SDS-PAGE, in-gel digestion, ESI-MS Abundance calculation: gel densitometry x peak area under curve of chromatographic fraction	
Boulengerina	*Naja melanoleuca*	Latoxan (Uganda)	12.9	Bottom up proteomic: RP-HPLC, in-gel digestion, MALDI TOF/TOF Abundance calculation: gel densitometry x peak area under curve of chromatographic fraction	[7]
Uraeus	*Naja haje*	Pooled venom from Morocco	4	Bottom up proteomic: RP-HPLC, in-solution digestion, nano-ESI-LCMS/MS	[8]

Reference

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