Consensus	Head	Body	Tail-region
SINEA1	----------/...../----------	GCGGCCCAAGAAATAGC	AACAACAACAACAACAAAAAAGACAAAAAGACCAAAAAAAAAAAAAAAAAAA
SINEA2	----------/...../----------	GCGGCCCAAGAAATAGC	AAAAAGACAAAAAAAAAAAAAA
SINEA3	----------/...../----------	GCGGCCCAAGAAATAGC	AAAAAGACAAAAAAAAAAA
SINEA4	----------/...../----------	GCGGCCCTAGAAAAGGC	AAAAAGACAAAAAAAAAAAAAA
SINEA5	----------/...../----------	GCGGCCCTAGAAAAGAC	AAAAAGACAAAAAAAAAAAAAA
SINEA6	----------/...../----------	GCGGCCCTAAAAAGAC	AAAAAACAAAAAAAAAAAAA
SINEA7	----------/...../----------	GCGGCCCTAAAAAGAC	AAAAAAAAAAAAAA
SINEA8	----------/...../----------	GCGGCCCTAAAAAGAC	AAAAAAAAAAAAAA
SINEA9	----------/...../----------	GCGGCCCTAAAAAGAA	AAAAAAAAAAAAAA
SINEA10	----------/...../----------	GCGGCCNTAAAAAGAA	AAAAAAAAAAAAAA
SINEA11	----------/...../----------	GCGGCCCTAGAAAAGGC	AAAAAAAAAAAAA
SINEB1	----------/...../----------	GCGGCCCTAAAAAAGGC	AAAAAAAAAAAAAAAAAAAAAAAAA
SINEB2	----------/...../----------	GCGGCCCTAAAAAAGGC	AAAAAAANAAAAAAAAAAAAAA
SINEB3	----------/...../----------	GCGGCCA	AAAAAGAAAAAAAAAAAAAAAA
SINEB4	----------/...../----------	GCGGCCA	AAAAAAGAAAAAAAAANAAAAAAAAAAAAA
SINEB5	----------/...../----------	GCGGCCA	AAAAAAGAAAAAAAAANAAAAAAAAAAAAA
SINEB6	----------/...../----------	GCGGCCGTAAAAAGAA	AAAAAAAAAAAATCGT
SINEC1	----------/...../----------	GCATGGCC	AAAAAAAAAA
SINEC2	----------/...../----------	GCATGGCC	AAAAAAAAA
SINEC3	----------/...../----------	GCGCGGCC	AAAAAAAAAAAAAAA
SINEC4	----------/...../----------	GCGCGGCC	AAAAAAAAAAAAA
SINEC5	----------/...../----------	GCGCGGCC	AAAAAA
SINEC6	----------/...../----------	GCGTGGCC	AAAAAAAAAAAAAAAAAAAAA
SINEC7	----------/...../----------	GCGTGGCC	AAAAACAAACAAACAAACAAAAAA
SINEC8	----------/...../----------	TGTGTGGC	AAAAAAGAAAAAAAAAAAAAATACAAAAAAAA

Figure S1. Based on the predefined cutoff sequences of the SINEA-C subfamily consensus sequence, the 5' end boundary region of the SINE tail is determined. The underlined part indicates the cutoff sequence of the corresponding SINE family.

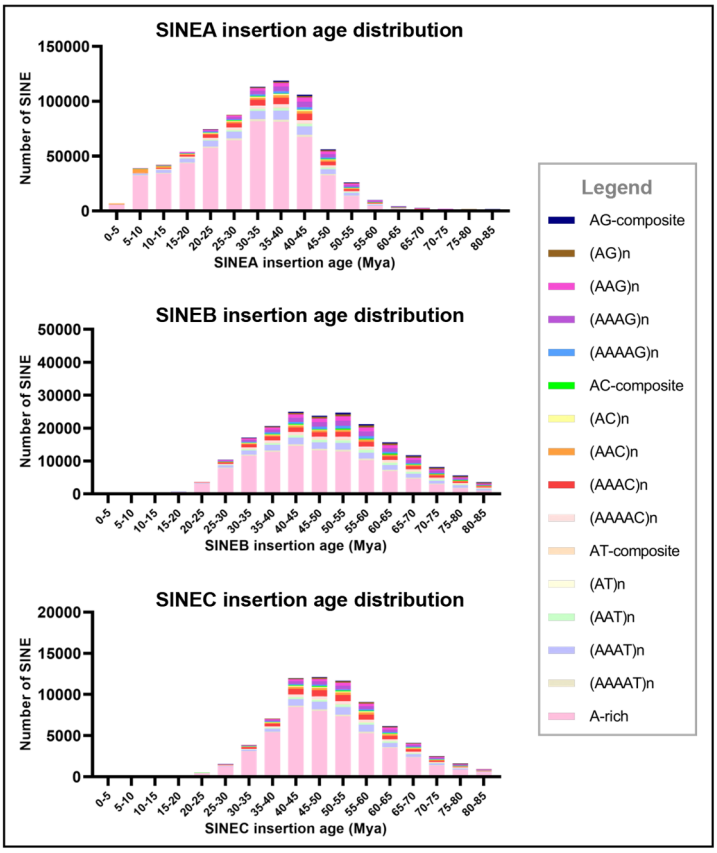


Figure S2. Temporal distribution of absolute SINEA/B/C tail abundances across evolutionary time. Stacked bar chart displaying the absolute number of SINE elements categorized by 16 tail structure types across 5-million-year (Mya) time intervals spanning 0-85 Mya. The x-axis represents SINE insertion age bins, while the y-axis quantifies the total number of SINE elements within each age interval.

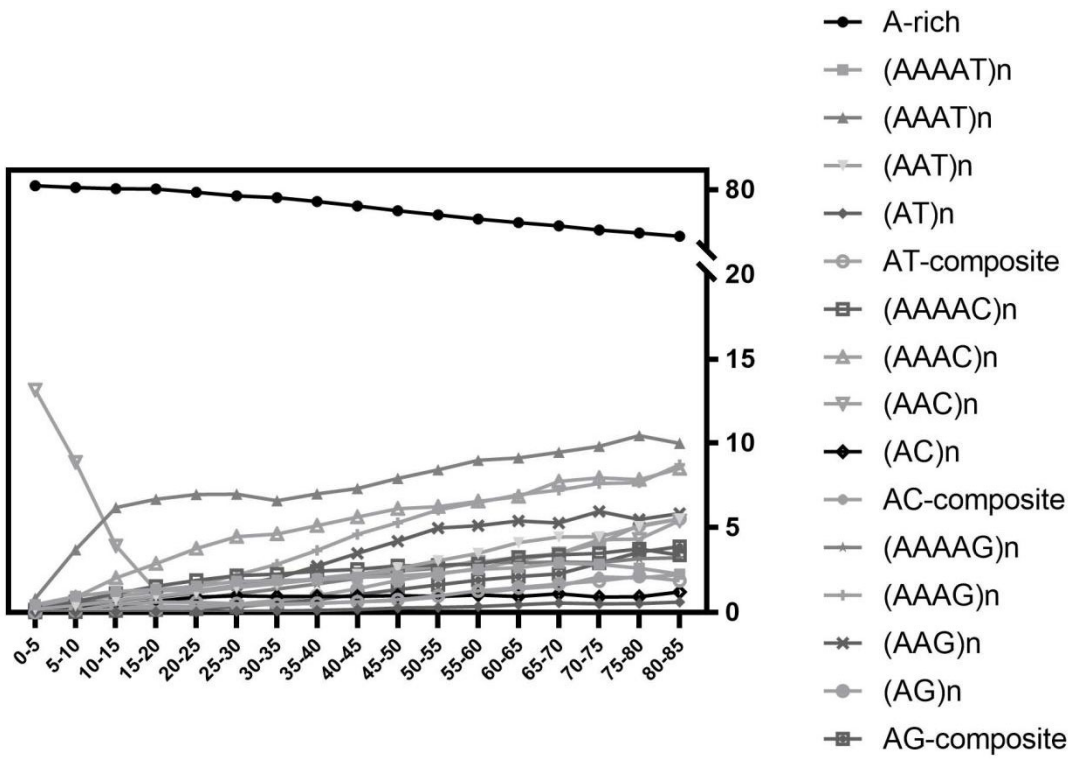


Figure S3. Temporal dynamics of relative SINE tail type proportions. Percentage line chart illustrating the relative compositional changes of 16 tail structure types across the same 5-Mya time intervals (0-85 Mya). The x-axis represents SINE insertion age point, while the y-axis displays percentage composition normalized to 100% within each temporal point.