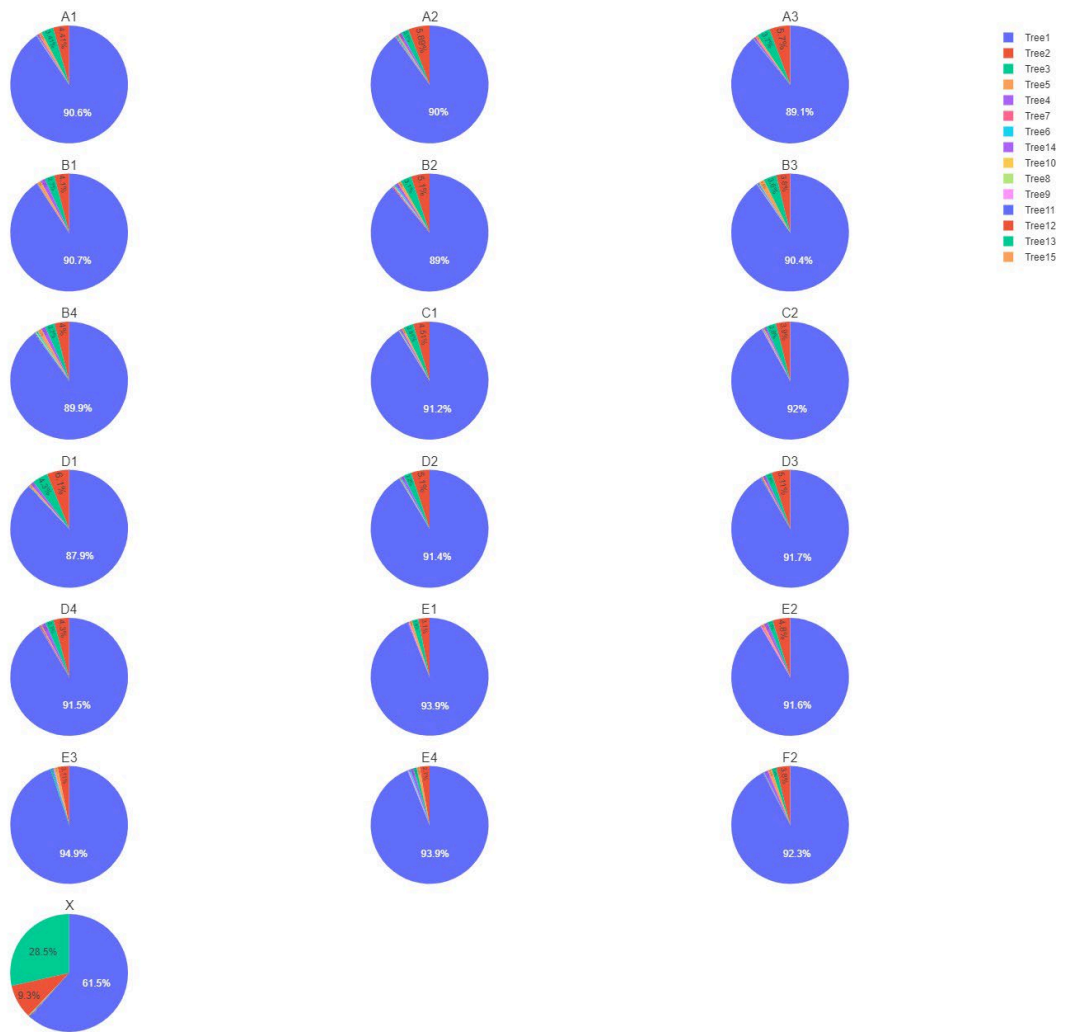
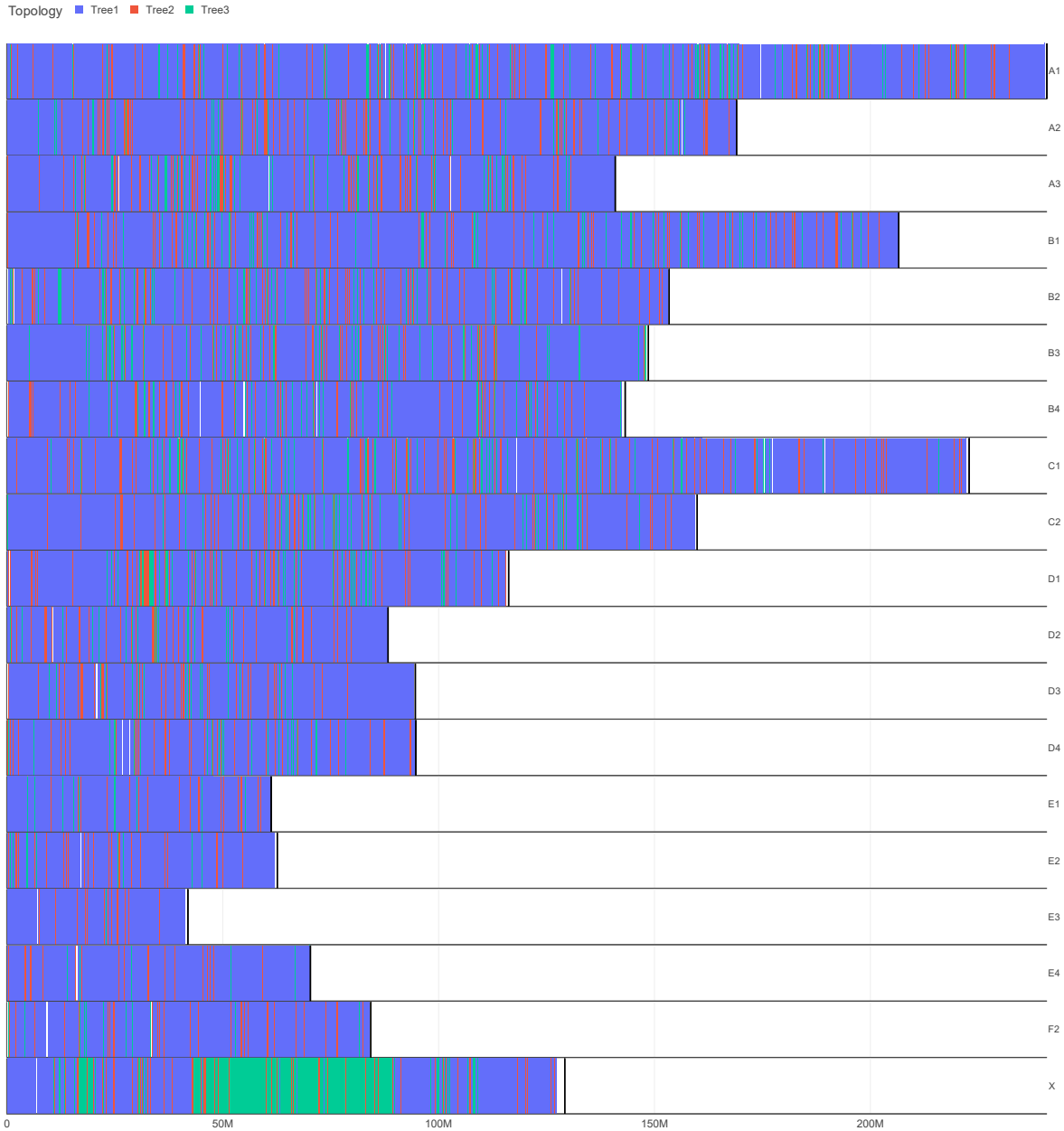


Supplementary Figure 1: Whole genome bar plots of topology frequencies per-chromosome for the top three most frequent topologies in the Asian leopard cat data set. Each chromosome is a single bar plot showing frequencies of Tree 1, 2, and 3.



Supplementary Figure 2: Whole genome pie charts of topology frequencies per-chromosome from the Asian leopard cat data set.



Supplementary Figure 3: Whole genome tile plot (1-D histogram) of tree topologies. Each row represents a single chromosome and the distribution of phylogenetic signal along them.



Supplementary Figure 4: X chromosome of Asian leopard cat data set showing the divergence time estimates for the node connecting the trio PBE (Asian leopard cat), IPL (Flat-headed cat), and PVI (Fishing cat) as described in Li et al. (2019).

Chromosome	Window	NewickTree	TopologyID
chr1	1000	(A,(B,C));	Tree1
chr2	2000	(B,(A,C));	Tree2
chr3	3000	(A,(B,C));	Tree1
chr3	4000	NoTree	

Supplementary Table 1: Example Tree Viewer input file with the minimum required columns and data.

Chromosome	Window	NewickTree	TopologyID	OptionalData1	OptionalData2
chr1	1000	(A,(B,C));	Tree1	0.1	High
chr2	2000	(B,(A,C));	Tree2	0.2	Low
chr3	3000	(A,(B,C));	Tree1	0.1	High

Supplementary Table 2: Example Tree Viewer input file with the minimum required data/columns and two additional data types. Additional data types can be numeric or categorical.

Chromosome	Window	Sample	Value
chr1	100	Tiger1	0.015
chr1	100	Tiger2	0.250
chr2	200	Tiger1	0.011
chr2	200	Tiger2	0.008

Supplementary Table 3: Example Signal Tracer input file

Gene Names - (gene description/alternative ID's)
PTPR
PMP2
FABP9
FABP4
FABP12
LOC101096683 - (olfactory receptor 1A1-like)
LOC101096930 - (olfactory receptor 1A1-like)
LOC101097188 - (olfactory receptor 1A1)
LOC101097434 - (olfactory receptor 1G1)
LOC101082530 - (olfactory receptor 1D2-like)
SLC6A11
LOC101082023 - (putative olfactory receptor 3A4)
LOC101095695 - (olfactory receptor 3A1-like)
LOC101095929 - (olfactory receptor 3A1)
LOC101082275 - (olfactory receptor 3A2)
LOC101096182 - (olfactory receptor 1D2)

LOC101096427 - (olfactory receptor 1P1-like)
RETSAT
ELMOD3
CAPG
SH2D6
LOC105260449 - (uncharacterized)
CFAP97
SNX25
GTPBP4
LOC102901899 - (isopentenyl-diphosphate Delta-isomerase 1)
WDR37
TSLP
WDR36
LOC102899579 - (NKG2-D type II integral membrane protein-like)
CNOT4
NUP205
CES1
CES5A
CADPS2
KALRN
LOC101094152 - (membrane cofactor protein)
LOC105261333 - (discontinued)
LOC102899519 - (discontinued)
LOC102899461 - (CR1L)
CR2
TRIM47
TRIM65
MRPL38
FBF1
ACOX1
TEN1
TCF7L1
LOC101090095 - (discontinued)
LOC105260461 - (discontinued)
LOC105259637 - (TGOLN2)
LOC102899313 - (uncharacterized)
LOC101092593 - (discontinued)
LOC101086711 - (discontinued)
LOC105260954 - (discontinued)
LOC105260955 - (discontinued)
LOC105260946 - (discontinued)
WDR36
LCMT1
ARHGAP17
IBSP

MAP3K5
LOC105260702 - (immunoglobulin heavy constant delta-like)
LOC101091707 - (Ig mu chain C region membrane-bound form-like)
LOC101086213 - (mesoderm-specific transcript homolog protein-like)
LOC102900480 - (olfactory receptor 2T27-like)
LOC101087376 - (olfactory receptor 2T27-like)
WEE2
SSBP1
LOC105260397 - (TAS2R3)
LOC105260396 - (TAS2R4)
LOC105260395 - (TAS2R5)
PRSS37
ARSE
ARSH
ARSF
TRPM3
LOC105260699 - (discontinued)
LOC101089619 - (discontinued)
LOC101093027 - (immunoglobulin heavy variable 3-74-like)
LOC105260698 - (discontinued)
LOC105260697 - (discontinued)
LOC101093280 - (discontinued)
LOC101093946 - (cationic amino acid transporter 3-like)
LOC102901040 - (uncharacterized)
LOC101094188 - (cationic amino acid transporter 3-like)
PAPPA2
LOC101086869 - (olfactory receptor 2AJ1-like)
LOC101087125 - (olfactory receptor 2M5-like)
LOC101091707 - (Ig mu chain C region membrane-bound form-like)
LOC105260701 - (discontinued)
LOC105260700 - (discontinued)
LOC101098211 - (discontinued)
LOC105260699 - (discontinued)

Supplementary Table 4: felCat8.0 annotated genes within the 42 windows identified to harbor signal of Canada lynx-bobcat hybridization. Information in parentheses beside LOC's are either the update gene symbol or gene description identified on NCBI using the updated gene annotations of the Domestic cat. Discontinued LOC entries were removed from the GO-Enrichment analysis as they likely represent poorly modeled genes in the felCat8.0 gene annotation data set.