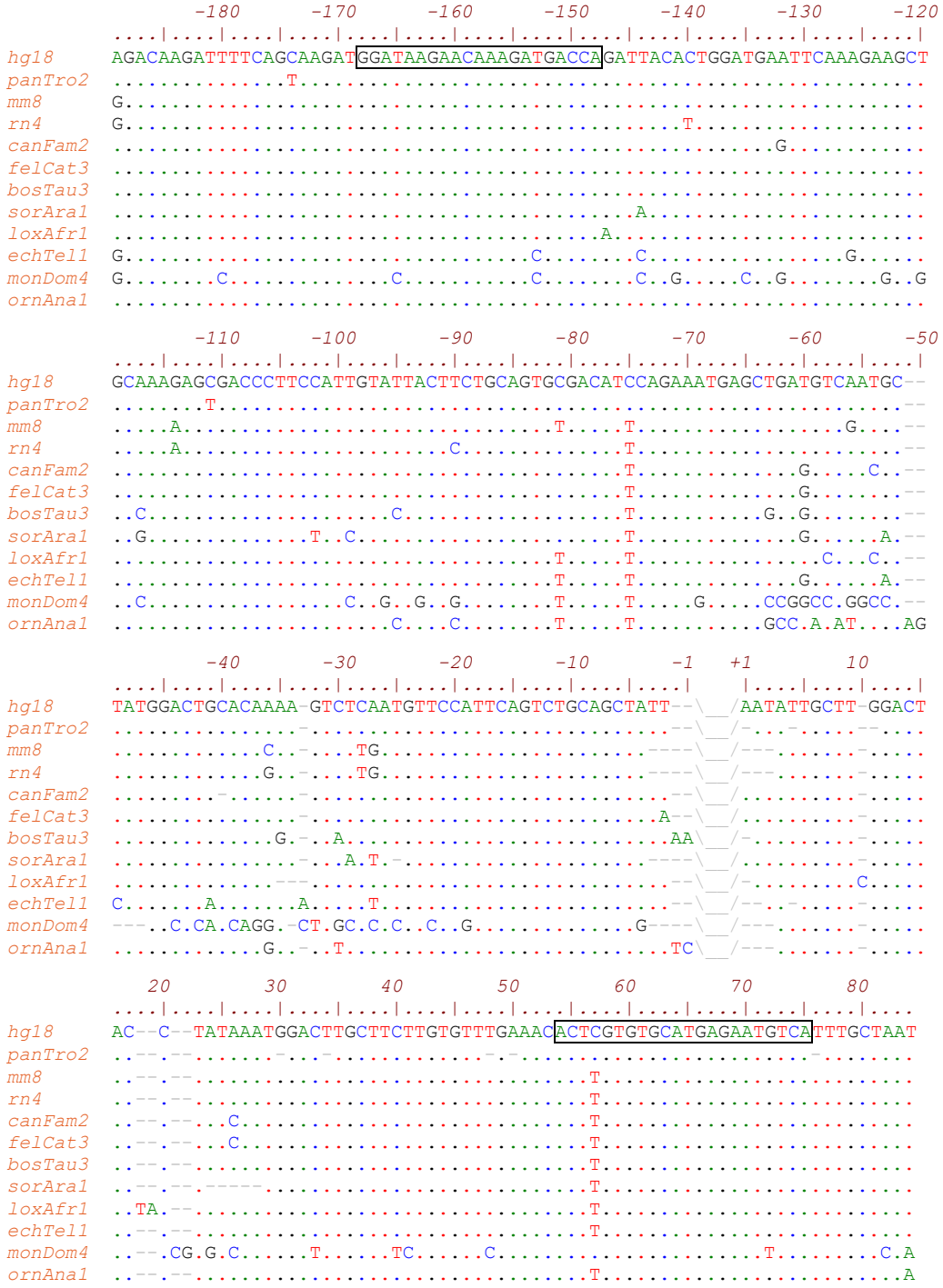
Supporting Information 7: UCSC 28-way alignment of five cross-species microsatellite locus showing species of interest (in order: C2-1218; C2-6868; C2-1915; C4-1514; C17-4243). (A) Flanking sequences. Underscores represent the microsatellite sequence; positions are counted upstream and downstream from the microsatellite. Boxes indicate primer sites, dashes gaps and dots bases identical to human. (B) Microsatellite sequence. Array length is shown in brackets. UCSC assemblies: Human (hg18), chimp (panTro2), mouse (mm8), rat (rn4), cow (bosTau3), dog (canFam2), cat (felCat3), shrew (sorAra1), hedgehog (eriEur1), armadillo (dasNov1), elephant (loxAfr1), tenrec (echTel1), opossum (monDom4), platypus (ornAna1).

A

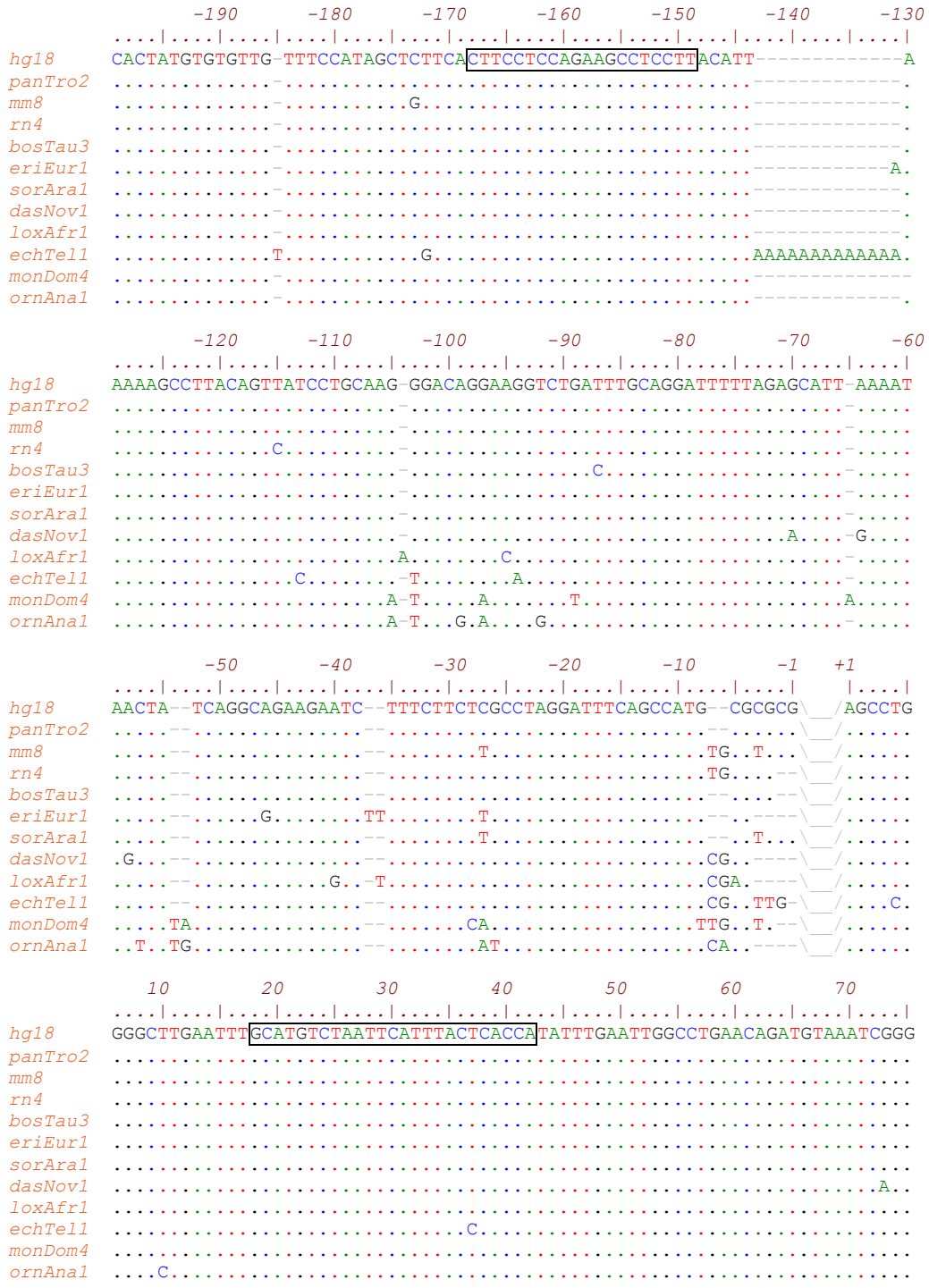


B

hg18 (46) \(CA)$_{23}$ /
panTro2 (49) \(CA)$_{24}$/
mm8 (65) \(CA)$_{15}$(CCACACC)$_4$C(CA)$_3$/
rn4 (53) \(CA)$_{20}$CTA(CA)$_6$ /
canFam2 (38) \(CA)$_4$TA(CA)$_{10}$CG(CA)$_3$/
felCat3 (38) \(CA)$_{19}$/
bosTau3 (31) \(CA)$_{15}$G/
sorAra1 (89) \(AC)$_{19}$AT(AC)$_5$GC(AC)$_5$ATGC(AC)$_2$A(AC)$_4$AT(AC)$_2$(AT)$_2$/
loxAfr1 (34) \(CA)$_4$TA(CA)$_4$TA(CA)$_7$/
echTel1 (33) \(CA)$_{16}$C/
monDom4 (39) \(CA)$_2$CTCG(CCCACA)$_2$(CTCACA)$_2$(CA)$_2$CCA/
ornAna1 (12) \(CA)$_4$(A)$_4$/

C2-1218

A



B

hg18 (42) \(CT)$_5$TT(CT)$_4$(T)$_4$C(CT)$_4$CC(CT)$_2$TTCT/

panTro2 (42) \(CT)$_5$TT(CT)$_4$(T)$_4$C(CT)$_4$CC(CT)$_2$TTCT/

mm8 (80) \(CT)$_{29}$T(CTC)$_2$C(CT)$_2$CC(CT)$_2$TTCT/

rn4 (50) \(CT)$_7$CC(CT)$_6$(TC)$_2$(CT)$_4$CC(CT)$_4$/

bosTau3 (42) \(CT)$_5$TT(CT)$_5$(T)$_4$(CT)$_4$CC(CT)$_4$/

eriEur1 (40) \(CT)$_5$AT(CT)$_4$(T)$_3$C(CT)$_5$CC(CT)$_4$/

sorAra1 (64) \(CT)$_3$TT(CT)$_5$TT(CT)$_4$CCTT(CT)$_5$TCTT(CT)$_4$CC(CT)$_4$/

dasNov1 (42) \(CT)$_5$TT(CT)$_4$(T)$_3$C(CT)$_4$CC(CT)$_4$/

loxAfr1 (42) \(CT)$_5$TT(CT)$_5$TTC(CT)$_4$CC(CT)$_4$/

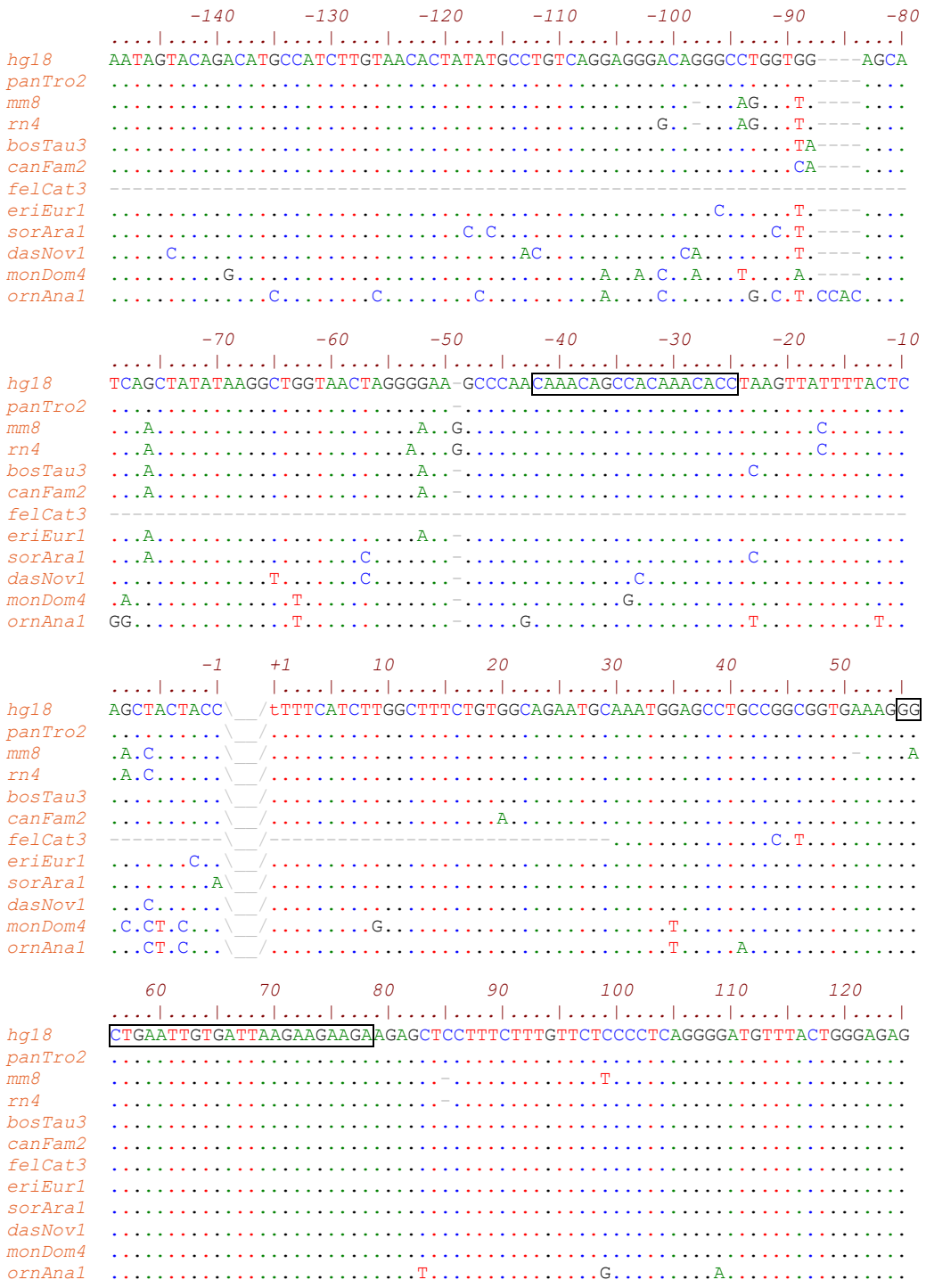
echTel1 (71) \ (CT)$_{22}$T(CT)$_3$TC(CT)$_4$CC(CT)$_2$TTCT/

monDom4 (42) \(CT)$_{11}$TT(CT)$_4$CCTT(CT)$_3$/

ornAna1 (166) \(CT)$_3$TGCTCATCTTTCTGGCCTGT(CT)$_2$(C)$_5$(CT)$_2$GTC(T)$_4$G(CT)$_2$(CCCT)$_2$(CT)$_4$\\
\\CC(CT)$_5$(C)$_8$TTACA(CT)$_6$AC(CT)$_3$CCT(C)$_4$ATGACTGTTCCCCTCCCATTTCT\\
\\(C)$_9$AT(CT)$_4$TCCT/

C2-6868

A



B

hg18 (51) \CTGTGC(CT)$_{15}$TT(TC)$_5$TTC/

panTro2 (37) \CTGTGC(CT)$_{14}$TTCT/

mm8 (75) \(CT)$_2$GAGC(CT)$_2$CC(CT)$_{14}$GT(CT)$_2$GT(CT)$_{12}$C/

rn4 (53) \(CT)$_2$GC(CT)$_{23}$C/

bosTau3 (50) \(CT)$_2$GC(CT)$_2$T(CT)$_7$(C)$_4$(CT)$_9$TTC/

canFam2 (61) \(CT)$_3$(CCT)$_2$(CTCTCCT)$_2$(CT)$_{16}$TTC/

felCat3 –

eriEur1 (50) \(CT)$_2$GCCTGCTT(CT)$_{15}$TTCTTTC/

sorAra1 (105) \CAT(TC)$_2$TG(TC)$_2$TG(CCTCT)$_2$GC(CTCTGT)$_2$(CT)$_4$(GTCTCT)$_2$(CTGTCT)$_2$\\
\\(CT)$_7$(C)$_3$(T)$_3$(C)$_3$(TC)$_2$CC(TC)$_3$TTTC/

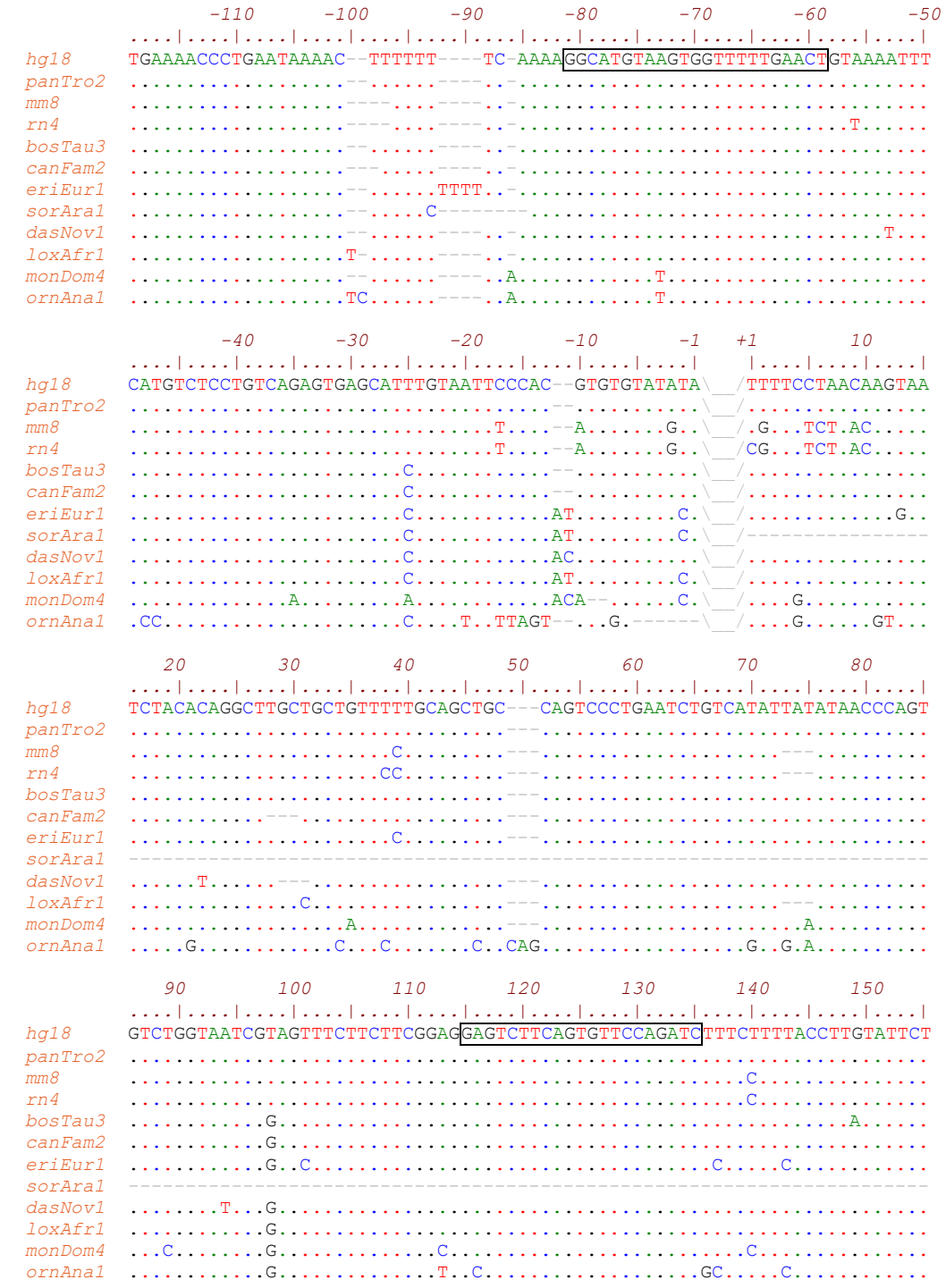
dasNov1 (67) \(CT)$_2$GCCTT(CT)$_9$GT(CT)$_3$GT(CT)$_5$TT(CT)$_8$TTC/

monDom4 (153) \(CT)$_2$GCT(C)$_6$ACC(T)$_3$(CT)$_{19}$CA(CT)$_{44}$A(T)$_4$/

ornAna1 (100) \ CTGTTC(T)$_6$C(A)$_5$(T)$_5$ATC(CCT)$_7$(CTT)$_2$T(CT)$_2$T(CT)$_2$CC(CT)$_4$TT(CT)$_5$(T)3A(T)$_7$CCTC /

C2-1915

A



B

hg18 (70) \GA(CA)$_3$AATA(CA)$_2$CC(TG)$_2$(CA)$_2$TA(CA)$_4$CGC(A)$_3$(CA)$_9$CT(CA)$_2$AACA/

panTro2 (71) \GA(CA)$_3$AATA(CA)$_2$CC(TG)$_2$(CA)$_2$TA(CA)$_4$GC(A)$_3$(CA)$_9$C(CA)$_3$AACA/

mm8 (104) \GATA(CA)$_5$AAGACT(CA)$_2$TA(C)$_4$TGTA(CA)$_2$TACATTCCT(GCAC)$_2$A(CG)$_3$(CA)$_4$(CT)$_2$(CA)$_{10}$\\
\\GTCTCG(CA)$_2$/

rn4 (66) \GATA(CA)$_6$AAGACT(CA)$_3$(C)$_3$TTGTA(CA)$_3$CC(CA)$_5$CC(CA)$_5$/

bosTau3 (66) \GA(CA)$_3$(A)$_4$(CA)$_2$CC(TG)$_2$(CA)$_2$TA(CA)$_2$AA(CA)$_3$TACACGCTCACG(CA)$_2$TACA(C)$_3$G/

canFam2 (82) \GA(CA)$_3$AA(CA)$_3$CC(TG)$_2$(CA)$_2$TA(CA)$_6$CGCCAACG(CA)$_2$TA(CA)$_3$CG(CA)$_2$TA(CA)$_5$AACA/

eriEur1 (107) \(CA)$_4$(A)$_3$TA(CA)$_3$CC(T)$_3$(GC)$_2$AC(GC)$_2$GT(GC)$_3$A(CA)$_2$TA(CA)$_{12}$TATGC(A)$_3$(CA)$_7$TA(CA)$_3$AATA/

sorAra1 -

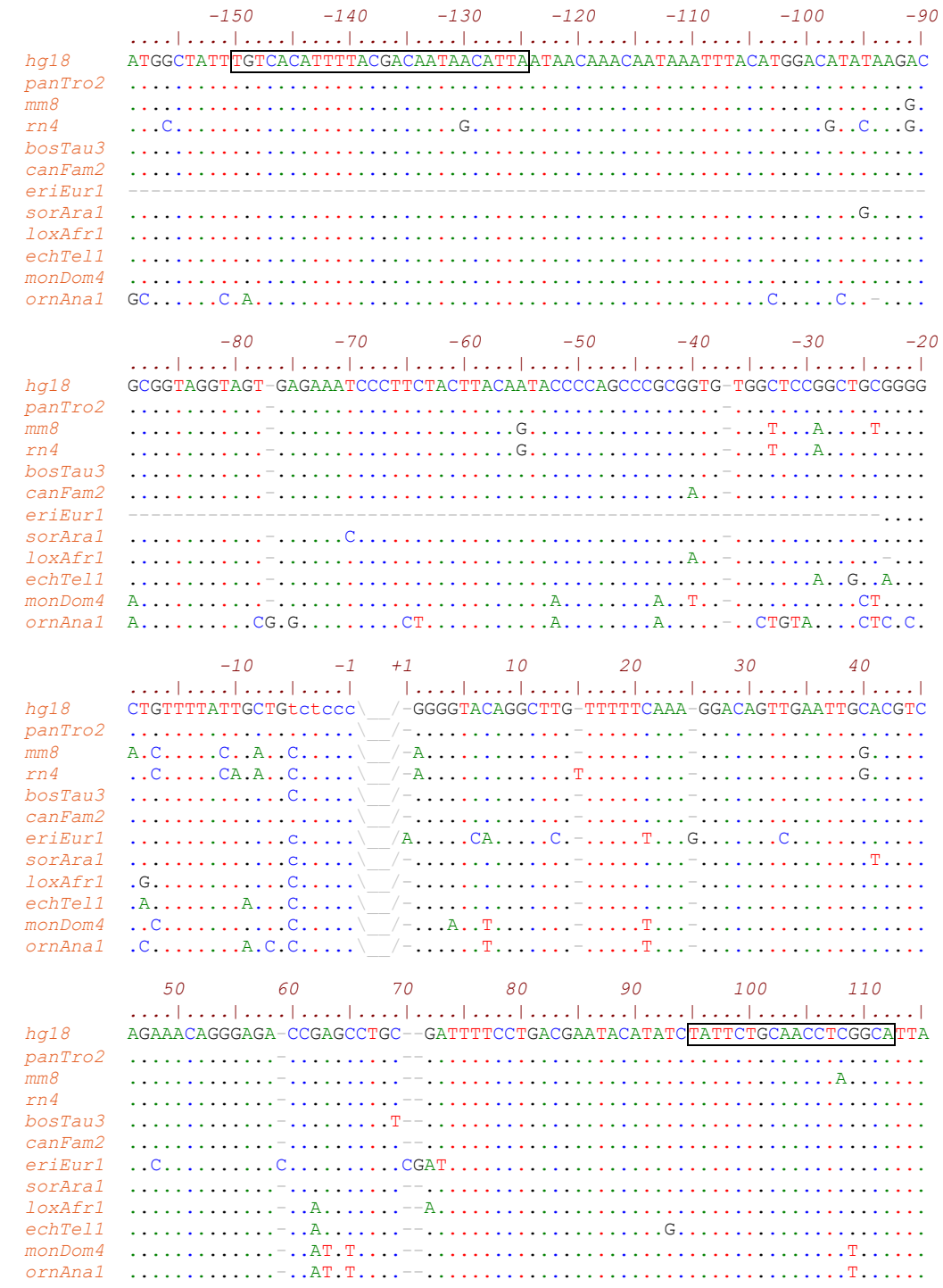
dasNov1 (48) \GACACGC(A)$_3$(CA)$_3$CC(TG)$_2$(CA)$_2$TA(CA)$_4$CG(CA)$_3$TACA/

loxAfr1 (64) \GA(CA)$_3$AATA(CA)$_2$CC(TG)$_2$(CA)$_2$TA(CA)$_4$CGC(A)$_3$(CA)$_6$(CG)$_2$C(A)$_3$CA/

monDom4 (75) \GA(CATACA)$_2$T(C)$_3$AGTGCG(CA)$_2$CG(CA)$_5$CG(CA)$_2$CT(CA)$_3$(TA)$_2$(CAAA)$_2$(CA)$_3$TCA/

ornAna1 (16) \(C)$_{10}$(A)$_4$CA/

A



B

hg18 (55) \(TTTC)$_2$(TC)$_7$CC(TC)$_5$(C)$_5$(TC)$_2$(T)$_8$(TC)$_2$/

panTro2 (57) \(TTTC)$_2$(TC)$_7$CC(TC)$_5$(C)$_4$(TC)$_3$(T)$_9$(TC)$_2$/

mm8 (55) \(TTTC)$_2$(TC)$_{15}$CC(TC)$_3$(T)$_5$(TC)$_2$/

rn4 (60) \TT(TC)$_{19}$CC(TC)$_2$(T)$_{10}$CCTC

bosTau3 (50) \(TC)$_2$(T)$_4$(TC)$_6$CC(TC)$_4$(C)$_4$(TC)$_2$(T)$_8$(TC)$_2$/

canFam2 (51) \(TC)$_2$(T)$_4$(TC)$_7$CC(TC)$_3$(C)$_4$(TC)$_3$(T)$_7$(TC)$_2$/

eriEur1 (52) \(TTC)$_2$TA(TCC)$_2$T(TCC)$_2$CCTT(TCT)$_2$(C)$_5$(TCT)$_2$(T)$_5$(TC)$_2$/

sorAra1 (58) \(TC)$_2$TT(TC)$_9$CC(TC)$_6$(C)$_4$(TC)$_2$(T)$_8$(TC)$_2$/

loxAfr1 (54) \(TC)$_2$(T)$_4$(TC)$_5$CC(TC)$_5$(C)$_4$(TC)$_3$(T)$_{10}$(TC)$_2$/

echTel1 (68) \TGTCTT(TC)$_8$CC(TC)$_3$TT(TC)$_2$(C)$_4$(TC)$_3$(C)$_3$(TC)$_6$(T)$_5$(TC)$_2$/

monDom4 (55) \TCTT(TC)$_9$TT(TC)$_5$(C)$_4$(TC)$_4$(T)$_5$(TC)$_2$/

ornAna1 (42) \(TC)$_2$(T)$_4$(TC)$_4$CCTTGC(TC)$_2$CC(TC)$_3$(T)$_5$TCTT/

C17-4243