

Supplementary information, Data S12 Two possible migration routes

In our demographic model (Figure 2A and 2C), there are two deeply divergent clades with one clade being purely East Asian dogs and the other clade being a mixture of East Asian dogs and European/Middle Eastern dogs. In dating the different clades (Figure 2A) we found that the deep split between the two dog clades is around 15,000 years ago (node 2 in Figure 2A). The time of divergence for European dogs is about 10,000 years ago (node 3 in Figure 2A).

Given these key time points in the history of dog, we wanted to know how dogs actually migrated from East Asia to the rest of the world. The biggest barrier between eastern and western Eurasia is the Tibetan Plateau (TP). There are two possible routes dogs could migrate from the East to the West. One is through the Indian coastal area south of the TP (Supplementary information, Figure 12A). The other possible route is inland and to the north of the TP (Supplementary information, Figure 12B). We denote these migratory histories as the Southern Route (SR) and the Northern Route (NR).

Teasing apart these two possible routes is still difficult given the existing information. Additional data from the Middle East and southern Asia should help unveil the demographic history of dog migration very soon.