Figure 5. Tectonic setting of the Central Andes subduction zone with report of large events (M ≥ 7.5) subduction earthquakes on the Peru-Chile megasequence since 1946. The Central Andes subduction is separated between the Nazca plate and the South America Craton. Convergence rate of the Nazca plate relative to the South America Craton (black arrow) is compared from Chelieh et al. (2011). Subduction is characterized with the subduction angle on the Nazca-South America plate interface and the location of the trench (green line). The evolution of the subduction system indicates major changes over time due to variation of the slab geometry. Historical magnitudes are compiled from Ernst and Hagg (1989) and Dermit et al. (1994). Slip distributions of the 1990 10.0, 1994 8.2, 1994 7.0, 1995 8.0, 1996 8.0, 1998 7.7 and 2008 8.0 events are drawn blue, green, red, yellow, orange, purple, and yellow, respectively. These events model include moment and offshore rupture. Yellow triangles represent major earthquakes. The color scale indicates slip amplitude.