**Box SB 9. Header file for simulation of the Simulated Example 3 in DIYABC.**

**DIYABCSc3.txt**

**8 parameters and 18 summary statistics**

**1 scenarios: 8**

**scenario 1 [1.0] (7)**

**N1 N2 N3**

**0 sample 1**

**2500 sample 2**

**5000 sample 3**

**t1 merge 1 2**

**t1 varNe 1 N4**

**t2 merge 1 3**

**t2 varNe 1 N5**

**historical parameters priors (7,0)**

**N1 N UN[100.0,1000.0,0.0,0.0]**

**N2 N UN[1000.0,10000.0,0.0,0.0]**

**N3 N UN[10000.0,100000.0,0.0,0.0]**

**t1 T UN[2501.0,25000.0,0.0,0.0]**

**N4 N UN[100.0,1000.0,0.0,0.0]**

**t2 T UN[25000.0,50000.0,0.0,0.0]**

**N5 N UN[10000.0,100000.0,0.0,0.0]**

**loci description (1)**

**locus\_S\_M\_1\_ <M> [S] G1 1000**

**group priors (1)**

**group G1 [S]**

**MEANMU UN[0.00000015,0.00000015,5E-9,2]**

**GAMMU GA[1.00E-9,1.00E-6,Mean\_u,0.15]**

**MEANK1 UN[0.050,20,10,2]**

**GAMK1 GA[0.050,20,Mean\_k1,0]**

**MEANK2 UN[0.050,20,10,2]**

**GAMK2 GA[0.050,20,Mean\_k2,2]**

**MODEL K2P 0 0.15**

**group summary statistics (18)**

**group G1 [S] (18)**

**NHA 1 2 3**

**NSS 1 2 3**

**MPD 1 2 3**

**DTA 1 2 3**

**MP2 1&2 1&3 2&3**

**HST 1&2 1&3 2&3**

**scenario N1 N2 N3 t1 N4 t2 N5 k1seq\_1 NHA\_1\_1 NHA\_1\_2 NHA\_1\_3**

**NSS\_1\_1 NSS\_1\_2 NSS\_1\_3 MPD\_1\_1 MPD\_1\_2 MPD\_1\_3 DTA\_1\_1 DTA\_1\_2**

**DTA\_1\_3 MP2\_1\_1&2 MP2\_1\_1&3 MP2\_1\_2&3 HST\_1\_1&2 HST\_1\_1&3 HST\_1\_2&3**