

Predicting forest cover changes in future climate using hydrological and thermal indices in South Korea

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Climate Research 49:229–245 (2011)

Supplement

Table S1. Optimal Warmth Index (WI), Minimum Temperature of the Coldest Month Index (MTCI), and seasonal Precipitation Effectiveness Index (PEI) habitat ranges for each species. EN: evergreen needle-leaved trees, DN: deciduous needle-leaved trees, DB: deciduous broad-leaved trees, EB: evergreen broad-leaved trees

Type	Code	Optimal WI range (°C)	Optimal MTCI range	Optimal PEI range (mm °C ⁻¹)			
				Annual	Spring	Summer	Winter
EN	A01	41.4–61.7	–111.4––60.7	120.9–227.4	165.3–379.7	84.1–116.3	98.1–287.5
EN	A02	39.5–55.6	–118.3––95.7	114.4–168.7	128.3–187.4	87.9–157.6	89.8–177.9
EN	A03	71.9–105.2	–82.7––37.5	77.8–112.6	64.7–113.3	120.5–172.2	41.8–92.4
EN	A04	46.5–87.1	–102.2––62.3	88.0–144.6	72.8–162.4	93.8–155.0	54.7–170.0
EN	A05	87.5–105.4	–68.2––35.0	85.6–102.7	67.3–102.9	142.7–173.4	47.1–77.4
EN	A06	97.1–116.2	–43.9––13.7	81.5–107.9	71.4–125.4	131.1–178.1	36.7–77.6
EN	A07	40.9–50.5	–116.3––100.2	114.9–154.5	141.0–238.9	90.1–122.1	83.9–145.7
DN	B01	69.0–95.4	–85.8––55.1	79.7–113.8	67.9–138.7	115.8–167.0	46.8–92.1
DB	C01	67.6–112.3	–66.7––6.2	103.5–138.2	79.2–178.1	72.7–185.3	44.0–225.0
DB	C02	39.5–54.3	–119.6––67.5	120.6–235.9	119.9–387.7	78.5–143.7	100.3–299.4
DB	C03	61.1–98.5	–85.1––23.0	90.4–156.0	78.8–219.9	106.3–162.1	51.7–181.4
DB	C04	62.7–99.0	–52.2––16.2	94.2–183.0	99.3–267.3	90.2–140.5	67.8–245.9
DB	C05	92.6–114.3	–45.1––12.3	89.0–113.8	87.6–143.9	138.9–180.2	43.6–74.5
DB	C06	88.8–104.1	–69.5––29.4	88.7–101.6	68.4–104.9	139.8–175.8	49.1–78.3
DB	C07	51.5–82.1	–97.4––64.5	100.3–141.6	89.3–200.7	109.1–149.0	88.6–134.1
DB	C08	73.4–102.5	–36.4––9.5	96.2–143.4	68.7–109.4	70.4–91.6	136.6–278.2
DB	C09	56.8–78.4	–93.5––71.8	93.6–125.5	83.4–129.4	122.1–153.6	63.6–121.0
DB	C10	87.2–106.5	–68.8––35.4	82.1–100.9	63.0–106.4	133.9–174.1	42.6–72.6
DB	C11	82.1–99.6	–74.2––48.2	78.1–99.3	66.1–98.1	117.2–167.6	46.2–74.4
DB	C12	72.2–109.8	–82.8––24.5	81.0–106.8	74.4–119.7	115.4–165.6	44.0–83.6
DB	C13	61.9–94.6	–94.6––54.5	79.5–122.3	63.8–132.1	116.2–170.0	43.7–107.5
DB	C14	73.2–106.9	–75.6––29.5	80.0–121.8	64.8–149.3	117.0–167.2	39.8–114.7
DB	C15	74.9–101.6	–80.8––41.7	80.3–108.5	66.5–112.4	119.6–170.9	45.5–89.2
DB	C16	91.7–108.4	–61.9––35.1	73.5–99.9	60.4–88.4	124.1–182.4	35.3–68.1
DB	C17	85.8–108.9	–59.7––16.8	86.8–119.1	71.8–145.3	110.2–184.7	42.2–115.4
EB	D01	97.7–115.6	–33.5––5.9	89.8–102.6	80.4–124.0	110.6–175.8	40.8–109.9
EB	D02	100.2–124.9	–21.7––5.3	88.5–124.2	89.7–165.5	141.2–177.9	42.4–91.8
EB	D03	92.4–114.8	–28.8––3.2	92.7–116.4	93.3–152.7	131.9–159.3	48.0–97.9

Supplement (continued)

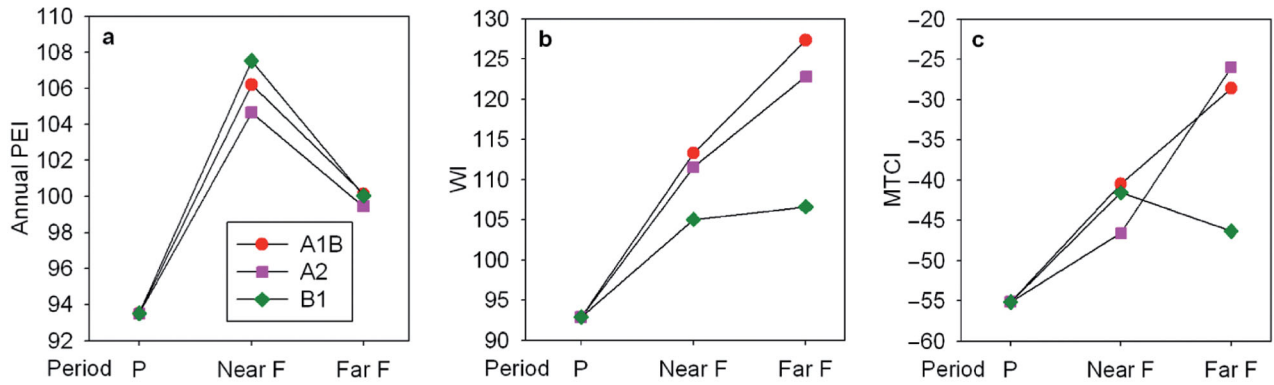


Fig. S1. Changes in mean (a) annual PEI, (b) WI, and (c) MTCl in South Korea due to climate change under IPCC B1, A2, and A1B scenarios. P: past (1971–2000), Near F: near future (2046–2065), Far F: far future (2080–2099). See Fig. 2 for abbreviations