

## SELECTED PUBLICATIONS (Google Scholar H-Index = 62; citations in brackets)

### **Functional Ecology of Desert Plants and Ecosystems:**

Smith SD, Monson RK, Anderson JE (1997) *Physiological Ecology of North American Desert Plants*. Springer-Verlag, Berlin. [536]

Smith SD, Nowak RS (1990) Ecophysiology of plants in the intermountain lowlands. Pages 179-241 in Osmond CB, Hidy GM, Pitelka LF (eds) *Plant Biology of the Basin and Range*. Springer, Berlin. [133]

Monson RK, Smith SD (1982) Seasonal water potential components of Sonoran Desert plants. *Ecology* 63:113-123. [122]

Smith SD, Didden-Zopfy B, Nobel PS (1984) High temperature responses of North American cacti. *Ecology* 65:643-651. [104]

Smith SD, Osmond CB (1987) Stem photosynthesis in a desert ephemeral, *Eriogonum inflatum*. *Oecologia* 72:533-541. [65]

Devitt DA, Smith SD (2002) Root channel macropores enhance downward movement of water in a Mojave Desert ecosystem. *Journal of Arid Environments* 50:99-108. [215]

Titus J, Nowak RS, Smith SD (2002) Soil resource heterogeneity in the Mojave Desert. *Journal of Arid Environments* 52:269-292. [290]

Hamerlynck EP, McAuliffe JR, McDonald EV, Smith SD (2002) Ecological responses of two Mojave Desert shrubs to soil horizon development and soil water dynamics. *Ecology* 83:768-779. [151]

### **Effects of Elevated CO<sub>2</sub> on Desert Plants and Ecosystems:**

Smith SD, Huxman TE *et al.* (2000) Elevated CO<sub>2</sub> increases productivity and invasive species success in an arid ecosystem. *Nature* 408:79-82. [738]

Smith SD, Strain BR, Sharkey TD (1987) Effects of CO<sub>2</sub> enrichment on four Great Basin grasses. *Functional Ecology* 1:139-143. [178]

Naumburg E . . . Smith SD (2003) Photosynthetic responses of Mojave Desert shrubs to free air CO<sub>2</sub> enrichment are greatest during wet years. *Global Change Biology* 9:276-285. [106]

Ellsworth DS, Reich PB, Naumburg ES, Koch GW, Kubiske ME, Smith SD (2004) Photosynthesis, carboxylation and leaf nitrogen responses of 16 species to elevated pCO<sub>2</sub> across four free-air CO<sub>2</sub> enrichment experiments in forest, grassland and desert. *Global Change Biology* 10:2121-2138. [347]

Jasoni RL, Smith SD, Arnone JA III (2005) Net ecosystem CO<sub>2</sub> exchange in Mojave Desert shrublands during the eighth year of exposure to elevated CO<sub>2</sub>. *Global Change Biology* 11:749-756. [168]

Housman DC . . . Smith SD (2006) Increases in desert shrub productivity under elevated CO<sub>2</sub> vary with seasonal water availability. *Ecosystems* 9:374-385. [81]

Newingham BA . . . Smith SD (2013) No cumulative effect of ten years of elevated [CO<sub>2</sub>] on perennial plant biomass components in the Mojave Desert. *Global Change Biology* 19:2168-2181. [80]

Evans RD . . . Smith SD, Nowak RS (2014) Greater ecosystem carbon in the Mojave Desert after ten years of exposure to elevated CO<sub>2</sub>. *Nature Climate Change* 4:394-397. [68]

Smith SD . . . Huxman TE (2014) Long-term response of a Mojave Desert winter annual plant community to a whole ecosystem atmospheric CO<sub>2</sub> manipulation (FACE). *Global Change Biology* 20:879-892. [43]

### **Functional Ecology of Desert Riparian Plants:**

Busch DE, Smith SD (1995) Mechanisms associated with decline of woody species in riparian ecosystems of the southwestern U.S. *Ecological Monographs* 65:347-370. [503]

Busch DE, Smith SD (1993) Effects of fire on water and salinity relations of riparian woody taxa. *Oecologia* 94:186-194. [203]

Busch DE, Ingraham NL, Smith SD (1992) Water uptake in woody riparian phreatophytes of the southwestern United States: a stable isotope study. *Ecological Applications* 2:450-459. [410]

Cleverly JR, Smith SD, Sala A, Devitt DA (1997) Invasive capacity of *Tamarix ramosissima* in a Mojave Desert floodplain: the role of drought. *Oecologia* 111:12-18. [326]

Sala A, Smith SD, Devitt DA (1996) Water use by *Tamarix ramosissima* and associated phreatophytes in a Mojave Desert floodplain. *Ecological Applications* 6:888-898. [333]

Smith SD, Devitt DA, Sala A, Cleverly JR, Busch DE (1998) Water relations of riparian plants from warm desert regions. *Wetlands* 18:687-696. [270]

### **Synthesis Work:**

Huxman TE, Smith MD, Fay PA, Knapp AK, Shaw MR, Loik ME, Smith SD *et al.* (2004) Convergence across biomes to a common rain-use efficiency. *Nature* 429:651-654. [1,176]

Osmond CB . . . Berry JA, Billings WD . . . Smith SD *et al.* (1987) Stress physiology and the distribution of plants. *BioScience* 37:38-48. [369]

Weltzin J, Schwinning S *et al.* (2003) Assessing the response of terrestrial ecosystems to potential changes in precipitation. *BioScience* 53:941-952. [983]

Nowak RS, Ellsworth DS, Smith SD (2004) *Tansley Review*: Functional responses of plants to elevated atmospheric CO<sub>2</sub> – Do photosynthetic and productivity data from FACE experiments support early predictions? *New Phytologist* 162:253-280. [818]

Knapp AK, Beier C *et al.* (2008) Consequences of more extreme precipitation regimes for terrestrial ecosystems. *BioScience* 58:811-822. [1,160]