

T.E. Dawson *et al.* publications as of February 2019

- 235.** Feng, X. D.D. Ackerly, **T.E. Dawson**, S. Manzoni, B. McLaughlin, R.P. Skelton, G. Vico, A. Weitz and S.E. Thompson. 2019. Beyond isohydricity: the role of environmental variability in determining plant drought responses. *Plant, Cell & Environment* (in press).
- 234.** Penna, D., L. Hopp, F. Scandellari, S.T. Allen, P. Benettin, M. Beyer, J. Geris, J. Klaus, J.D. Marshall, L. Schwendenmann, T.H.M. Volkmann, J. von Freyberg, A. Amin, N. Ceperley, M. Engle, J. Frentress, Y. Giambastiani, J.J. McDonnell, G. Zuecco, P. Llorens, R.T. Siegwolf, **T.E. Dawson** and J.W. Kirchner. 2018. Ideas and Perspectives: Tracing terrestrial ecosystem water fluxes using hydrogen and oxygen stable isotopes – challenges and opportunities from an interdisciplinary perspective. *Biogeosciences* **15**: 1-17.
- 233.** Fontes, C.G., **T.E. Dawson**, K. Jardine, N. McDowell, B. Gimenez, L. Anderegg, R. Negon-Juarez, N. Higuchi, P. Fine, A.C. Araujo and J.Q. Chambers. Dry and Hot: hydraulic consequences of climate-change type drought for Amazonia Trees. *Philosophical Transactions of the Royal Society B* **273** [doi.org/10.1098/rstb.2018.0209].
- 232.** McCauley, J.C., Mpenba, J., Warrington, I.T., **T.E. Dawson**, Power, M.E., L.F. Hughey and J.S. Brashares. 2018. Diverse effects of common hippopotamus on plant communities and soil chemistry. *Oecologia* (in press).
- 231.** Feng, X., D.D. Ackerly, **T.E. Dawson**, S. Manzoni, R.P. Skelton, G. Vico, and S. E. Thompson. 2018. The ecohydrological context of drought and classification of plant responses. *Ecology Letters* **21**: 1723-1736 [doi: 10.1111/ele.13139].
- 230.** Abruto-Oropeza, O. et al. 2018. Harnessing cross boarder resources to confront climate change. *Environmental Science and Policy* **87**: 128-132.
- 229.** Olson, M.E., D. Soriano, J.A. Rosell, T. Anfodillo, C. León-Gómez, J.J. Camarero Martínez, **T. Dawson**, M.J. Donoghue, A. Echeverría, E. Edwards, C.I. Espinosa, A. Fajardo, V. Figueroa, A. Gazol, R. Lima, C.R. Marcati and R. Méndez-Alonzo. 2018. Plant height and hydraulic vulnerability to drought and cold. *Proceedings of the National Academy of Sciences USA* (in press) [doi/10.1073/pnas.1721728115].
- 228.** **Dawson, T.E.** and G.R. Goldsmith. 2018. The value of wet leaves. *New Phytologist: Tansley Review* **219**: 1156-1169 [doi: 10.1111/nph.15307].
- 227.** Grossiord, C., S.C. Sevanto, D. Bonal, I. Borrego, M.G. Ryan, **T.E. Dawson** and N.G. McDowell. 2018. Prolonged warming and drought modify belowground interactions for water among coexisting plants. *Tree Physiology* (in press).

- 226.** Skelton, R.P., A. Weitz, Y. Shen, S. Thompson, **T.E. Dawson** and D.D. Ackerly. 2018. Low xylem vulnerability to water deficit in leaves and stems of North American *Quercus* species. *Plant Physiology* (in press).
- 225.** Benettin, P., T.H.M. Volkman, J. von Freyberg, J. Frentress, D. Penna, **T.E. Dawson** and J.W. Kirchner. 2018. Effects of climatic seasonality on the isotopic composition of evaporating soil waters. *Hydrology and Earth System Science* **22**: 2881-2890.
- 224.** Stears, K., McCauley, D.J, Finlay, J.C., Mpenba, J., Warrington, I.T., **T.E. Dawson**, Power, M.E., L.F. Hughey and J.S. Brashares. 2018. Effects of the hippopotamus on the chemistry and ecology of a changing watershed. *Proceedings of the National Academy of Sciences USA* (in press).
- 223.** Cornwell, W.K, I.J. Wright, J. Turner, V. Marie, M.M. Barbour, L.A. Cernusak, **T.E. Dawson**, D. Ellsworth, G.D. Farquhar, H. Griffiths, C. Keitel, A. Knohl, P.B. Reich, D.G. William, R. Bhaskar, J.H.C. Cornelissen, A. Richards, S. Schmidt, F. Valladares, C. Korner, E-D. Schulze, N. Buchmann and L.S. Santiago. 2018. Climate and soils together regulate carbon isotope discrimination within C₃ plants worldwide. *Global Ecology and Biogeography* **27**: 1056-1067 [doi: 10.1111.geb.12764].
- 222.** Hahn, J., **T.E. Dawson** and W.E. Dietrich. 2018. Controls on the distribution and resilience of *Quercus garryana*: ecophysiological evidence of oak water-limitation tolerance. *Ecosphere* (in press).
- 221.** Muñoz-Villers, L.E., F. Holwerda, S. Alvarado-Barrientos, D.R. Geissert, **T.E. Dawson**. Reductions in dry season transpiration correspond with shallow soil water uptake in tropical montane cloud forest trees. *Oecologia* (in press) [doi.org/10.1007].
- 220.** Roddy, A.B., K.A. Simonin, K.A. McCulloh, C.R. Brodersen and **T.E. Dawson**. 2018. Water relations of *Calycanthus* flowers: hydraulic conductance, capacitance, and embolism resistance. *Plant, Cell & Environment* (in press) [doi: 10/1111/pce.13205].
- 219.** Nydick, K.R., N.A. Stephenson, A.R. Ambrose, A.R., G.P. Asner, W.L. Baxter, A.J. Das, **T. Dawson**, R.E. Martin and T. Paz-Kagan. 2018. Leaf to landscape level responses of giant sequoia to hotter drought: an introduction and synthesis for the special edition. *Forest Ecology and Management* (in press).
- 218.** Ambrose, A.R., W.L. Baxter, R.E. Martin, E. Francis, G.P. Asner, K.P. Nydick and **T.E. Dawson**. 2018. Leaf- and crown-level adjustments help giant sequoias maintain whole-tree favorable water status during severe drought. *Forest Ecology and Management* (in press).

217. Martin, R.E., G.P. Asner, E. Francis, A. Ambrose, W. Baxter, A.J. Das, N.R. Vaughn, T. Paz-Kagan, **T. Dawson**, K. Nydick and N.A. Stephenson. 2018. Remote measurement of canopy water content in giant sequoias (*Sequoiadendron giganteum*) during drought. *Forest Ecology and Management* (in press).

216. Santiago, L.S., K. Silvera, J.L. Andrade and **T.E. Dawson**. 2017. Functional strategies of tropical dry forest plants in relation to growth form and isotopic composition. *Environmental Research Letters* **12**: 11506 [doi.org/10.1088/1748-9326/aa8959].

215. **Dawson, T.E.**, R.K. Monson and J.K. Ward. 2018. Honoring the career of James R. Ehleringer. *Oecologia* [Special Issue] **187**: 875-878 [doi.org/10.1007/s00442-018-4201-8].

214. Hultine, K.R., S.E. Bush, J.K. Ward and **T.E. Dawson**. 2018. Does sexual dimorphism predispose dioecious riparian trees to sex ratio imbalances under climate change? *Oecologia* [Special Issue] **187**: [doi.org/10.1007/s00442-018-xxx-x].

213. Voelker, S.L, J.S. Roden and **T.E. Dawson**. 2018. Millennial-length tree-ring isotope chronologies from coastal redwoods provide insights on controls over California hydroclimate variability. *Oecologia* [Special Issue] **187**: [doi.org/10.1007/s00442-018-4193-4].

212. Gotsch, S.G, **T.E. Dawson** and D. Draguljic. 2018. Variation in the resilience of cloud forest epiphytes to severe drought. *New Phytologist* **219**: 900-913 [doi: 10.1111/nph.14866].

211. Kennedy, S., **T.E. Dawson** and R. Gillespie. 2018. Stable isotopes reflect substrate properties and trophic ecology in spiders along a Hawaiian chronosequence. *PeerJ* (in press) [doi: 10.7717/peerj.4527].

210. Williams, C.B., Naesborg, R.R. and **T.E. Dawson**. 2018. Coping with gravity: the foliar water relations of Giant Sequoia. *Tree Physiology* (in press).

209. Campbell, J.E. and Whelan, M.E. and Berry, J.A. and Hilton, T.W., Zumkehr, A., Stinecipher, J., Lu, Y., Kornfeld, A., Seibt, U., **Dawson, T.E.**, Montzka, S.A., Baker, I.T., Kulkarni, S., Wang, Y., Herndon, S.C., Zahniser, M.S., Commane, R. and Loik, M.E. 2017. Plant uptake of atmospheric carbonyl sulfide in coast redwood forests. *Journal of Geophysical Research: Biogeosciences* [doi:10.1002/2016JG003703/full].

208. S.L. Brantley, S.L., D.M. Eissenstat, J.A. Marshall, S.E. Godsey, J. Roering, Z. Balogh-Brunstad, D. L. Karwan, **T.E. Dawson**, J. Evaristo, O. Chadwick, J.J. McDonnell, S.A. Papuga, and K. C. Weathers. 2017. On the roles that trees play in building and plumbing the critical zone. *Biogeosciences Discussions* [doi:10.5194/bg-2017-61].

- 207.** Feng, X., S.E. Thompson, **T.E. Dawson**, L.S. Santiago and D.D. Ackerly. 2017. Reconciling seasonal hydraulic risk and plant water use through probabilistic soil-plant dynamics. *Global Change Biology* **23**: 3758-3769 [doi: 10.1111/gcb.13640].
- 206.** McLaughlin, B., D.D. Ackerly, **T.E. Dawson**, P.Z. Klos, J. Natali and S.E. Thompson. 2017. Hydrologic refugia, plants and climate change. *Global Change Biology* **23**: 2941-2961 [doi: 10.1111/gcb.13629].
- 205.** Grossiord, C., S. Sevanto, **T.E. Dawson**, H. Adams, A. Collins, L. Dickman, B. Newman, E. Stockton and N. McDowell. 2017. Warming combined with more extreme precipitation regimes modifies the water sources used by trees. *New Phytologist* **213**: 584-596 [doi: 10.1111/nph.14192].
- 204.** Ambrose, A.R., S.S.O. Burgess, W.L. Baxter, C.S. Wong, C.B. Williams, R.R. Næsborg, G.W. Koch and **T.E. Dawson**. 2016. Hydraulic constraints on optimal resource utilization in giant sequoia trees. *Oecologia* **182**: 713-730 [doi: 10.1007/s00442-016-3705-3].
- 203.** Berry, Z.C., S.G. Gotsch, F. Holwerda, L. Muñoz-Villers, **T.E. Dawson**, and H.A. Asbjornsen, H.A. 2016. Slope position influences vegetation-atmosphere interactions in a tropical montane cloud forest. *Agricultural and Forest Meteorology*. **21**: 207-218.
- 202.** Roddy, A.B., C.R. Brodersen and **T.E. Dawson**. 2016. Hydraulic conductance and the maintenance of water balance in flowers. *Plant, Cell & Environment* **39**: 2123-2132.
- 201.** Mambelli, S. P.D. Brooks, R. Sutka, S. Hughes, K.M. Finstad, J. Pakes Nelson and **T.E. Dawson**. 2016. High throughput method for simultaneous quantification of N, C and S stable isotopes and concentrations in organics and soils. *Rapid Communications in Mass Spectrometry* **30**: 1743-1753.
- 200.** deVries, M.S., B. Stock, J.H. Christy, G.R. Goldsmith and **T.E. Dawson**. 2016. Specialized morphology corresponds to a generalist diet: linking form and function in mantis shrimp crustaceans. *Oecologia* **182**: 429-442. [doi:10.1007/s00442-016-3667-5]
- 199.** Walsh, R.E., A.P. Assis, J.L. Patton, G. Marroig, **T.E. Dawson** and E.A. Lacey. 2016. Morphological and Dietary Responses of Chipmunks to a Century of Climate Change. *Global Change Biology* **22**: 3233-3252.
- 198.** Oshun, J. W.E. Dietrich, **T.E. Dawson** and I. Fung. 2016. Dynamic, structured heterogeneity of water isotopes inside hillslopes. *Water Resources Research* **52**: 164-189 [doi 10.1002/2015WR017485].

- 197.** Lazzarin, M., A. Crivellaro, C.B. Williams, **T.E. Dawson**, G. Mozzi and T. Anfodillo. 2016. Tracheid and pit anatomy vary in tandem in tall *Sequoiadendron giganteum* trees. *International Association of Wood Anatomists* **37**: 172-185.
- 196.** Voelker, S.L + 20 co-authors. 2016. A dynamic leaf gas-exchange strategy is conserved in woody plants under changing ambient CO₂: evidence from carbon isotope discrimination in paleo and CO₂ enrichment studies. *Global Change Biology* **22**: 889-902.
- 195.** Muñoz-Villers, L.E., F. Holwerda, L. M.S. Alvarado-Barrientos, D. Geissert, B. Marin-Castro, A. Gómez-Tagle, J. McDonnell, H. Asbjornsen, **T. Dawson** and L.A. Bruijnzeel. 2015. Efectos hidrológicos de al conversión del bosque de niebla en el centro de Veracruz, México (English title: Hydrological effects of cloud forest conversion in central Veracruz, Mexico). *Bosque* **36**: 395-407.
- 194.** *Templer, P.H., K.C. Weathers, H.A. Ewing, **T.E. Dawson**, S. Mambelli, A.M. Lindsey, J. Webb, V.K. Boukili, and M.K. Firestone. 2015. Fog as a Source of Nitrogen for Redwood Trees: evidence from fluxes and stable isotopes. *Journal of Ecology* **103**: 1397-1407. **selected as Editor's Choice for the journal issue*
- 193.** Asbjornsen, H., R. Manson, J. Scullion, F. Holwerda, L. Muñoz-Villers, M.S. Alvarado-Barrientos, D. Geissert, **T.E. Dawson**, J.J. McDonnell, and L.A. Bruijnzeel. 2015. Exploring interactions between payments for hydrologic services, landowner decisions, and ecohydrological consequences in a Mexican cloud forest watershed: A disconnect between the policy goals and outcomes? *Ecology and Society* **22**: 25-.
- 192.** H.A. Mooney and **T. E. Dawson**. 2015. Northern Forest Ecosystems (Chapter 26). In: *Ecosystems of California*. E. Zavaleta and H. Mooney (editors). University of California Press.
- 191.** Skelton, R.P., A.G. West and **T.E. Dawson**. 2015. Predicting plant vulnerability to drought in biodiverse regions using functional traits. *Proceedings of the National Academy of Sciences (USA)* **112**: 5744-5749 [doi/10.1073/pnas.1503376112].
- 190.** Hill, A.J. **T.E. Dawson**, O. Shelef and S. Rachmilevitch. 2015. The role of dew for Negev Desert plants. *Oecologia* **178**: 317-327.
- 189.** Osuna, J., D. Baldocchi, H. Kobayashi and **T.E. Dawson**. 2015. Seasonal trends in photosynthesis and electron transport during the Mediterranean summer drought. *Tree Physiology* **35**: 485-500.
- 188.** Martín-Gómez, P., A. Barbeta, J. Voltas, J. Peñuelas, K. Dennis, S. Palacio, **T.E. Dawson** and J.P. Ferrio. 2015. Isotope Ratio Infrared Spectroscopy: a reliable tool for the investigation of plant water sources?. *New Phytologist* **207**: 914-

- 187.** Priyadarshini, K.V.R., H.H.T. Prins, S. de Bie, I.M.A. Heitkönig, S. Woodborne, G. Gort, K. Kirkman, F. Ludwig, **T.E. Dawson** and H. de Kroon. 2015. Dry season limited hydraulic-redistribution by trees to grasses and seasonal changes in their water sources imply shifts in tree-grass interactions. *Ecohydrology* **8** (in press).
- 186.** Ambrose, A.R., W.L. Baxter, C.S. Wong, R.R. Naesborg, C.B. Williams and **T.E. Dawson**. 2015. Contrasting drought response strategies in California redwoods. *Tree Physiology* **35**: 453-469.
- 185.** McCauley, D., **T.E. Dawson**, J. Finlay, M.E. Power and J.S. Brashares. 2015. Carbon stable isotopes suggest that hippopotamus-vectored nutrients subsidize aquatic consumers in an East African river. *Ecosphere* **6(4)**: 52-. <http://dx.doi.org/10.1890/ES14-00514.1>.
- 184.** deVries, M.S., C. Martínez del Rio, T.S. Tunstall and **T.E. Dawson**. 2015. Isotopic incorporation and discrimination in mantis shrimp: insights into crustacean physiology and life history. *PLoSOne* 10(4): e0122334. doi:10.1371/journal.pone.0122334.
- 183.** Sachse, D., **T.E. Dawson** and A. Kahmen. 2015. Seasonal variation of leaf wax n-alkane production and δD values from the evergreen oak tree, *Quercus agrifolia*. *Isotopes in Environmental & Health Studies* (in press).
- 182.** Gotsch, S.G., N.M. Nadkarni, A. Darby, M. Dix, A. Glunk and **T.E. Dawson**. 2015. Life in the Treetops: Ecophysiological Strategies of Canopy Epiphytes in a Tropical Montane Cloud Forest. *Ecological Monographs* **85**: 393-412.
- 181.** Zeppel, M.J.B., S.P. Harrison, H.D. Adams, G. Li, D.I. Kelly, A.G. West, **T.E. Dawson**, R. Fensham, B.R. Medlyn, A. Palmer, D.T. Tissue, and N. McDowell. 2015. Drought and resprouting plants. *New Phytologist*.
- 180.** Roddy, A.B., K. Winter and **T.E. Dawson**. 2015. Sap flow through petioles and petiolules reveals leaf-level responses to light and vapor pressure deficit in the tropical tree *Tabebuia rosea* (Bignoniaceae). *PeerJ* doi: 10.1101/000711.
- 179.** Barbeta, A., M. Mejía-Chang, R. Ogaya, J. Voltas, **T.E. Dawson** and J. Peñuelas. 2015. The combined effects of a long-term experimental drought and an extreme drought event on plant water source utilization in a Mediterranean forest. *Global Change Biology* **21**: 1213-1225.
- 178.** Viani, R.A.G, R.R Rodrigues, **T.E. Dawson**, H. Lambers and R.S. Oliveira. 2015. Soil pH accounts for differences in species distribution and leaf nutrient concentrations of

Brazilian woodland savannah and Seasonally Dry forest species. *Perspectives in Plant Ecology, Evolution and Systematics*.

177. Gotsch, S.G., S.D. Crausbay, T.W. Giambelluca, A. Weintraub, R. Longman, H. Asbjornsen, S.C. Hotchkiss and **T.E. Dawson**. 2014. Water relations and microclimate around the upper limit of cloud forest in Maui, Hawai'i. *Tree Physiology* **34**: 766-777
176. Alvarado-Barrientos, M. S., F. Holwerda, D.R. Geissert, L.E. Muñoz-Villers, S.G. Gotsch, H. Asbjornsen, and **T.E. Dawson**. 2014. Preceding fog enhances nighttime transpiration in a seasonal tropical montane cloud forest environment. *Trees – Structure and Function* **29**: 259-274 [doi: 10.1007/s00468-014-1111-1].
175. Simonin, K.S., E. Burns, B. Choat, **T.E. Dawson** P.J. Franks and M. Barbour. 2014. Leaf hydraulic conductance increases with transpiration rate to minimize the water potential drawdown from stem to leaf. *Journal of Experimental Botany* doi: 10.1093/jxb/eru481.
174. Link, P., K. Simonin, H. Maness, J. Oshun, **T. Dawson** and I. Fung. 2014. Species differences in the seasonality of evergreen tree transpiration in a Mediterranean climate: Analysis of multiyear, half-hourly sapflow observations. *Water Resources Research* **50**: doi: 10.1002/2013WR014023.
173. Bhaskar, R., **T.E. Dawson** and P. Balvanera. 2014. Community assembly and functional diversity along succession in a secondary tropical dry forest post-agricultural use. *Functional Ecology* **28**: 1256-1265.
172. Simonin, K.A., P. Link, D. Rempe, S. Miller, J. Oshun, C. Bode, W. Dietrich, I. Fung and **T.E. Dawson**. 2014. Vegetation induced changes in the stable isotope composition of near surface humidity. *EcoHydrology* **7(3)**: 936-949.
171. Alvarado-Barrientos, M.S, F. Holwerda, H. Asbjornsen, **T.E. Dawson** and L.A. Bruijnzeel. 2014. Suppression of transpiration due to cloud immersion in a seasonally dry Mexican weeping pine plantation. *Agricultural and Forest Meteorology* **186**: 12-25.
170. Oerter, Erik, K. Finstad, J. Schaefer, G.R. Goldsmith, **T.E. Dawson** and R. Amundson. 2014. Oxygen isotope fractionation effects in soil water via interaction with cations (Mg, Ca, K, Na) adsorbed to phyllosilicate clay minerals. *Journal of Hydrology* **515**: 1-9.
169. Crutsinger, G.M., M.A. Rodriguez-Cabal, A.B. Roddy, K.G. Peay, J.L. Bastow, A.G. Kidder, **T.E. Dawson**, P.V.A. Fine and J.A. Rudgers. 2014. Genetic variation within a dominant shrub structures green and brown community assemblages. *Ecology* **95**: 387-398.

- 168.** Gotsch, S.G., H. Asbjornsen, F. Holwerda, G.R. Goldsmith and **T.E. Dawson**. 2014. Foggy days and dry nights determine crown-level water balance in a seasonal tropical montane cloud forest. *Plant, Cell & Environment* **37**: 261-272.
- 167.** Johnstone, J.A., J.A. Roden and **T.E. Dawson**. 2013. Oxygen and carbon stable isotopes in coast redwood tree rings respond to spring and summer climate signals. *Journal of Geophysical Research: Biogeosciences* **118**: doi:10.1002/jgrg.20111.
- 166.** Simonin, K.A., A.B. Roddy, P. Link, R. Apodaca, K.P. Tu, J. Hu, **T.E. Dawson** and M.M. Barbour. 2013. Isotopic composition of transpiration and rates of change in leaf water isotopologue storage in response to environmental variables. *Plant, Cell & Environment* **36**: 2190-2206.
- 165.** Santiago, L.S. and **T.E. Dawson**. 2013. Light use efficiency of California redwood forest understory plants along a moisture gradient. *Oecologia* **174**: 351-363.
- 164.** Shim, J.H., H.H. Powers, C.W. Meyer, A. Knohl, **T.E. Dawson**, W.T. Pockman and N. McDowell. 2013. Hydrologic control of the oxygen isotope ratio of ecosystem respiration in a semiarid woodland. *Biogeosciences* **10**: 512-534.
- 163.** Roddy, A.B., M. Guilliams, T. Lilittham, J. Farmer, V. Wormser, T. Pham, P.V.A. Fine, T.S. Field and **T.E. Dawson**. 2013. Uncorrelated evolution of leaf and petal vein densities across the angiosperm tree of life. *Journal of Experimental Botany* **64**: 4081-4088.
- 162.** Skelton, R., A.G. West, **T.E. Dawson** and J. Leonard. 2013. External heat-pulse method allows comparative sapflow measurements in diverse functional types in a Mediterranean-type shrubland in South Africa. *Functional Plant Biology* doi.org/10.1071/FP12379.
- 161.** Carbone, M. S., A.P. Williams, A.M. Ambrose, C.M. Boot, E. Bradley, **T.E. Dawson**, S.M. Schaeffer, J.P. Schimel and C.J. Still. 2013. Cloud shading and fog drip influence the metabolism of a coastal pine ecosystem. *Global Change Biology* **19**: 484-497.
- 160.** Álvarez-Cansino, L., **T.E. Dawson**, M. Cruz Díaz Barradas, M. Zunzunegui and M. Paz Esquivias. 2012. Gender-specific variation in physiology in the dioecious shrub *Corema album* throughout its distributional range. *Functional Plant Biology* .
- 159.** Moreno-Gutiérrez, C., **T.E. Dawson**, E. Nicolás, J.I. Querejeta. 2012. Isotopes reveal contrasting water use strategies among coexisting plant species in a Mediterranean ecosystem. *New Phytologist* **195**: 367-375.

- 158.** Roddy, A.B. and **T.E. Dawson.** 2012. Determining the water dynamics during flowering using miniature sap flow sensors. *Acta Horticulturae* **951**: 47-53.
- 157.** Goldsmith, G.R., N. Matzke and **T.E. Dawson.** 2012. The incidence and implications of clouds for cloud forest plant water relations. *Ecology Letters* **16**: 307-314.
- 156.** Goldsmith, G.R., L.E. Muñoz-Villers, F. Holwerda, J.J. McDonnell, H. Asbjornsen and **T.E. Dawson.** 2012. Stable isotopes reveal linkages among ecohydrological processes in a seasonally dry tropical montane cloud forest. *Ecohydrology* **5**: 779-790.
- 155.** Werner, C., H. Schnyder, M. Cuntz, C. Keitel, M.J. Zeeman, **T.E. Dawson,** F-W. Badeck, E. Brugnoli, J. Ghashghaie, T.E.E. Grams, Z.E. Kayler, M. Lakatos, X. Lee, C. Máguas, J. Ogée, K.G. Rascher, R.T.W. Siegwolf, S. Unger, J. Welker, L. Wingate and A. Gessler. 2012. Progress and challenges using stable isotopes to trace plant carbon and water relations across scales. *Biogeosciences* **9**: 3083-3111.
- 154.** West A.G., **T.E. Dawson,** E.C. February, G.F. Midgley, W.J. Bond and T.L. Aston. 2012. Diverse functional responses to drought in a Mediterranean-type shrubland in South Africa. *New Phytologist* **195**: 396-407.
- 153.** Ackerly, D.D., R.A. Ryals, W.K. Cornwell, S.R. Loarie, S. Veloz, K.D. Higgason, W.L. Silver and **T.E. Dawson.** 2012. *Potential impacts of climate change on biodiversity and ecosystem services in the San Francisco Bay Area.* California Energy Commission. Publication number CEC-434-2012.
- 152.** Pittermann, J., S.A. Stuart, **T.E. Dawson** and A. Moreau. 2012. Cenozoic climate change shaped the evolutionary eco-physiology of the Cupressaceae conifers. *Proceedings of the National Academy of Sciences* **109**: 9647-9652.
- 151.** Ewing, H.A., K.C. Weathers, A.M. Lindsey, P.H. Templer, **T.E. Dawson,** D.C. Bradbury, M.K. Firestone, and V.K.S. Boukili. 2012. Fog and soil weathering as sources of nutrients in a California redwood forest. *In*: R.B. Standiford, T.J. Weller, D.D. Piirto and J.D. Stuart (eds.), *Proceedings of coast redwood forests in a changing California: a symposium for scientists and managers: General Technical Report PSW-GTR-238.* Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture, p. 265-272.
- 150.** Hynson, N.A., S. Mambelli, A.S. Amend and **T.E. Dawson.** 2012. Shady business: stable isotopes, and severing mycorrhizal networks show changes in mycoheterotrophy under light limitation. *Oecologia* **169**: 307-317.
- 149.** Simonin, K.A., E.B. Limm and **T.E. Dawson.** 2012. Hydraulic conductance of leaves correlates with leaf lifespan: implications for lifetime carbon gain. *New Phytologist* **193**:

939-947.

- 148.** Sache, D., I. Billault, G.J. Bowen, Y. Chikaraishi, **T.E. Dawson** *et al.* (+14 others). 2012. Molecular paleohydrology: interpreting the hydrogen isotopic composition of lipid biomarkers from photosynthetic organisms. *Annual Review of Earth and Planetary Science* **40**: 221-249.
- 147.** Viani, R.A.G., R.R. Rodrigues, **T.E. Dawson** and R.S. Oliveira. 2011. Savanna soil limits growth but not survival of forest tree seedlings. *Plant & Soil*.
- 146.** Mambelli, S., J.A. Bird, G. Gleixner, **T.E. Dawson** and M.S. Torn. 2011. Relative contribution of foliar and fine root pine litters to the molecular composition of soil organic matter after *in situ* degradation. *Organic Geochemistry* **42**: 1099-1108.
- 145.** West, A.G., G.R. Goldsmith, I. Matimati, I. and **T.E. Dawson**. 2011. Spectral analysis software improves confidence in plant and soil water stable isotope analyses performed by isotope ratio infrared spectroscopy (IRIS). *Rapid Communications in Mass Spectrometry* **25**: 2268-2274.
- 144.** Carbone, M.S., C.J. Still, A.M. Ambrose, **T.E. Dawson**, A.P. Williams, C.M. Boot, S.M. Schaeffer, and J.P. Schimel. 2011. Seasonal and episodic moisture controls on plant and microbial contributions to soil respiration. *Oecologia* **167**: 265-278.
- 143.** Hinckley, T.M., B. Lachenbruch, F.C. Meinzer and **T.E. Dawson**. 2011. A lifespan perspective on integrating structure and function in trees. Pp. 1-33 In: F.C. Meinzer, B. Lachenbruch and T.E. Dawson (Eds.) *Size- and Age-Related Changes in Tree Structure and Function*. Springer Tree Physiology Series. Springer-Verlag.
- 142.** Meinzer, F.C., B. Lachenbruch and **T.E. Dawson** (editors). 2011. *Size- and Age-Related Changes in Tree Structure and Function*. Springer Tree Physiology Series. Springer-Verlag.
- 141.** Kahmen, A., **T.E. Dawson**, A. Vieth and D. Sachse. 2011. Leaf wax *n*-alkane δD values are determined early in the ontogeny of deciduous *Populus trichocarpa* leaves. *Plant, Cell & Environment* **34**: 111-118.
- 140.** Viani, R.A.G, R.S. Oliveira, R.R. Rodrigues and **T.E. Dawson**. 2011. Functional differences between woodland savannas and seasonally dry forests from south-eastern Brazil: evidence from ^{15}N natural abundance studies. *Austral Ecology*.
- 139.** **Dawson, T.E.** and K.S. Simonin. 2011. The roles of stable isotopes in forest hydrology and biogeochemistry. Pp. 137-161 In: D.F. Levia, D.E. Carlyle-Moses, T. and

Tanaka, T. (Eds.), *Forest Hydrology and Biogeochemistry: Synthesis of Research and Future Directions*. Ecological Studies Series, No. 216, Springer-Verlag, Heidelberg, Germany.

138. Roden, J.S. J.A. Johnstone and **T.E. Dawson**. 2011. Regional and watershed-scale coherence in the stable oxygen and carbon isotope ratio time-series in tree-rings of coast redwood (*Sequoia sempervirens*). *Tree Ring Research* **67**: 71-86.

137. Werner, C., F. Badeck, E. Brugnoli, B. Cohn, M. Cuntz, **T.E. Dawson**, A. Gessler, J. Ghashghaie, T.E.E. Grams, Z. Kayler, C. Keitel, M. Lakatos, X. Lee, C. M'aguas, J. Og'ee, K.G. Rascher, H. Schnyder, R. Siegwolf, S. Unger, J. Welker, L. Wingate and M.J. Zeeman. 2011. Linking carbon and water cycles using stable isotopes across scales: progress and challenges. *Biogeosciences Discussions* **8**: 2659–2719.

136. Asbjornsen, H., G.R. Goldsmith, M.S. Alvarado-Barrientos, K. Rebel, F.P. Van Osch, M. Rietkerk, J. Chen, S. Gotsch, C. Tobón, D.R. Geissert, A. Gómez-Tagle, K. Vache, and **T.E. Dawson**. 2011. Ecohydrological advances and applications in plant-water relations research: A review. *Journal of Plant Ecology* **4**: 3-22.

135. Kahmen, A., D. Sachse, S.K. Arndt, M. Farrington, P.M. Vitousek & **T.E. Dawson**. 2011. Cellulose $\delta^{18}\text{O}$ is an index of atmospheric demand for water in tropical plants. *Proceedings of the National Academy of Sciences* **108**: 1981-1986.

134. Ma, S.Y., D.D. Baldocchi, S. Mambelli, and **T.E. Dawson**. 2011. Are temporal variations of leaf traits responsible for seasonal and inter-annual variability in ecosystem CO_2 exchange? *Functional Ecology* **25**: 258-270.

133. Gaudinski, J.B., M.S. Torn, W.J. Riley, **T.E. Dawson**, J.D. Joslin, H. Majdi. 2010. Measuring and modeling the spectrum of fine root turnover times in three forests using isotopes, minirhizotrons and the Radix model. *Global Biogeochemical Cycles* **24**: GB3029, doi:10.1029/2009GB003649.

132. Saveyn, A., Steppe, K., N. Ubierna and **T.E. Dawson**. 2010. Woody tissue photosynthesis and its contribution to trunk growth and bud development in young plants. *Plant, Cell & Environment* **33**: 1949-1958.

131. Ambrose, A.R., S.C. Sillett, G.W. Koch, R. Van Pelt, M.E. Antoine and **T.E. Dawson**. 2010. Effects of height on treetop transpiration and stomatal conductance in coast redwood (*Sequoia sempervirens*). *Tree Physiology* **30**: 1260-1272.

130. Pittermann, J., B. Choat, S. Jansen, S.A. Stuart, L. Lynn and **T.E. Dawson**. 2010. The relationships between xylem safety and hydraulic efficiency in the Cupressaceae: the evolution of pit membrane form and function. *Plant Physiology* **153**: 1919-1931.

- 129.** Limm, E.B. and **T.E. Dawson.** 2010. *Polystichum munitum* (Dryopteridaceae) varies geographically in its capacity to absorb fog water by foliar uptake within the redwood forest ecosystem. *American Journal of Botany* **97(7)**: 1121-1128.
- 128.** West, A.G., G.R. Goldsmith, P.D. Brooks and **T.E. Dawson.** 2010. Discrepancies between isotope ratio infrared spectroscopy and isotope ratio mass spectrometry for the stable isotope analysis of plant and soil waters. *Rapid Communications in Mass Spectrometry* **24**: 1-7.
- 127.** Johnstone, J.A. and **T.E. Dawson.** 2010. Climatic context and ecological implications of summer for decline in the coast redwood region. *Proceedings of the National Academy of Sciences* **107(10)**: 4533-4538.
- 126.** West, J.B., G.J. Bowen, **T.E. Dawson** and K.P. Tu (editors). 2010. *Isoscapes - Understanding movement, pattern, and process on Earth through isotope mapping*. Springer-Verlag. 487 pp.
- 125.** Bowen, G.J., J.B. West and **T.E. Dawson.** 2010. Isoscapes in a rapidly changing and increasingly interconnected world. Pp. 425-432, In: *Isoscapes - Understanding movement, pattern and process on Earth through isotope mapping*. Springer-Verlag.
- 124.** Burgess, S. S. O. M.L. Kranz, N.E. Turner, R. Cardell-Oliver and **T.E. Dawson.** 2010. Harnessing wireless sensor technologies to advance forest ecology and agricultural research. *Agricultural and Forest Meteorology* **150**: 30-37.
- 123.** Kahmen, A., K.S. Simonin, K.P. Tu, G. Goldsmith and **T.E. Dawson.** 2009. The influence of species and growing conditions on oxygen isotope leaf water enrichment and its impact on "effective path length". *New Phytologist* **184**: 619-630.
- 122.** Limm, E.B., K.A. Simonin, A.G. Bothman and **T.E. Dawson.** 2009. Foliar water uptake: a common water acquisition strategy for plants of the redwood forest. *Oecologia* **161**: 449-459.
- 121.** Craine, J.M., A.J. Elmore, M. P.M. Aida, M. Bustamante, **T.E. Dawson**, E.A. Hobbie, A. Kahmen, M.C. Mack, K.K. McLauchlan, A. Michelsen, G.B. Nardoto, L.H. Pardo, J. Peñuelas, P.B. Reich, E.A.G. Schuur, W.D. Stock, P.H. Templer, R.A. Virginia, J.M. Welker, and I.J. Wright. 2009. Global patterns of foliar nitrogen isotopes and their relationships with climate, mycorrhizal fungi, foliar nutrient concentrations, and nitrogen availability. *New Phytologist* **183**: 980-992.

- 120.** Simonin, K.S., L.S. Santiago and **T.E. Dawson**. 2009. Fog interception by *Sequoia sempervirens* (D. Don) crowns decouples physiology from soil water deficit. *Plant, Cell & Environment* **32**: 882-892.
- 119.** Ambrose, A.R., S.C. Sillett and **T.E. Dawson**. 2009. Effects of tree height on branch hydraulics, leaf structure, and gas exchange in California's redwood species. *Plant, Cell & Environment* **32**: 743-757.
- 118.** Moriarty, K.M., W.J. Zielinski, A.G. Gonzales, **T.E. Dawson**, K.M. Boatner, C.A. Wilson, F.V. Schlexer, K.L. Pilgrim, J.P. Copeland and M.K. Schwartz. 2009. Wolverine confirmation in California after Nearly a Century: Native or Long-Distance Immigrant? *Northwest Science* **83**: 154-162.
- 117.** Gaudinski, J.B., M.S. Torn, W.J. Riley, C. Swanston, S.E. Trumbore, J.D. Joslin, H. Majdi, **T.E. Dawson**, and P.J. Hanson. 2009. Use of stored carbon reserves in growth of temperate tree roots and leaf buds: analyses using radiocarbon measurements and modeling. *Global Change Biology* **15**: 992-1014.
- 116.** Lilleskov, E.A., T.D. Bruns, **T.E. Dawson** and F.J. Camacho. 2009. Water sources and controls on water-loss rates of epigeous ectomycorrhizal fungal sporocarps during summer drought. *New Phytologist* **182**: 483-494.
- 115.** Ewing, H.A., K.C. Weathers, P.H. Templer, **T.E. Dawson**, M.K. Firestone, A.M. Elliott and V.K.S. Boukili. 2009. Fog water and ecosystem function: heterogeneity in a California Redwood forest. *Ecosystems* **12**: 417-433.
- 114.** Cernusak, L.A., G. Tcherkez, C. Keitel, W.K. Cornwell, L.S. Santiago, A. Knohl, M.M. Barbour, D.G. Williams, P.B. Reich, D.S. Ellsworth, **T.E. Dawson**, H.G. Griffiths, G.D. Farquhar and I.J. Wright. 2009. Why are non-photosynthetic tissues generally ¹³C enriched compared to leaves in C₃ plants? Review and synthesis of current hypotheses. *Functional Plant Biology* **36**: 199-213.
- 113.** Roden, J.S., J.A. Johnstone and **T.E. Dawson**. 2009. Intra-annual variation in the stable oxygen and carbon isotope ratios of cellulose in tree rings of coast redwood (*Sequoia sempervirens*). *The Holocene* **19**: 189-197.
- 112.** Plamboeck, A.H., M. North and **T.E. Dawson**. 2008. Conifer seedling survival under closed-canopy and manzanita patches in the Sierra Nevada. *Madrono* **55**: 191-201.
- 111.** Koenig, W.D., D.J. Schaefer, S. Mambelli, and **T.E. Dawson**. 2008. Acorns, insects, and the diet of adult versus nestling Acorn Woodpeckers. *Journal of Field Ornithology* **79**: 280-285.

- 110.** Kahmen, A., K. Simonin, K.P. Tu, A. Merchant, A. Callister, **T.E. Dawson** and S.K. Arndt. 2008. Physiological and morphological effects on leaf water $\delta^{18}\text{O}$ enrichment in different *Eucalyptus* species. *Plant, Cell and Environment* **31**: 738-751.
- 109.** Chen, Q., D.B. Baldocchi, P. Gong and **T.E. Dawson**. 2008. Modeling radiation and photosynthesis of a heterogeneous savanna woodland landscape with a hierarchy of model complexity. *Agricultural and Forest Meteorology* **148**: 1005-1020.
- 108.** Anderson, R.L., R. Byrne and **T. Dawson**. 2008. Stable isotope evidence for a foggy climate on Santa Cruz Island, California at ~16,000 cal. Yr. B.P. *Palaeogeography, Palaeoclimatology, Palaeoecology* **262**: 176-181.
- 107.** Burgess, S.O.O. and **T.E. Dawson**. 2008. Using branch and basal sap flow measurements to estimate whole-plant capacitance: a caution. *Plant and Soil* **305**: 5-13.
- 106.** **Dawson, T.E.** and R. T.W. Siegwolf (editors). 2007. *Stable Isotopes as Indicators of Ecological Change*. Academic Press-Elsevier, San Diego. 417 pp.
- 105.** **Dawson, T.E.** and R. T.W. Siegwolf. 2007. Using stable isotopes as indicators, tracers and recorders of ecological change: some context and background. Pp. 1-18 In: T.E. Dawson and R.T.W. Siegwolf (eds.) *Stable Isotopes as Indicators of Ecological Change*. Academic Press-Elsevier, San Diego.
- 104.** Ehleringer, J.R. and **T.E. Dawson**. 2007. Stable isotopes record ecological change, but a sampling network will be critical. Pp. 19-24 In: T.E. Dawson and R.T.W. Siegwolf (eds.) *Stable Isotopes as Indicators of Ecological Change*. Academic Press-Elsevier, San Diego.
- 103.** Grams, T.E.E., A.R. Kozovits, K-H. Häberle, R. Matyssek and **T.E. Dawson**. 2007. Combining $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ analyses to unravel competition, CO_2 and O_3 effects on the physiological performance of different-aged trees. *Plant, Cell & Environment* **30**: 1023-1034.
- 102.** Plamboeck, A.H., **T.E. Dawson**, L.M. Egerton-Warburton, M. North, T. Bruns and J.I. Querejeta. 2007. Water transfer via fungal hyphae to conifer seedlings. *Mycorrhiza* **17**: 439-447.
- 101.** Burgess, S.O.O. and **T.E. Dawson**. 2007. Predicting the limits to tree height using statistical regressions of leaf traits. *New Phytologist* **174**: 626-636.
- 100.** Lambrecht, S.C. and **T.E. Dawson**. 2007. Correlated variation of floral and leaf traits along a moisture availability gradient. *Oecologia* **151**: 574-583.

99. Wenk, E.H. and **T.E. Dawson**. 2007. Interspecific differences in seed germination, establishment, and early growth in relation to preferred soil type in an alpine community. *Arctic, Antarctic and Alpine Research* **39**: 165-176.
98. Fisher, J.B., D.D. Baldocchi, L. Mission, **T.E. Dawson** and A.H. Goldstein. 2007. What the towers don't see at night: Nocturnal sapflow in trees and shrubs at two AmeriFlux sites in California. *Tree Physiology* **27**: 597-610.
97. **Dawson, T.E.**, S.O.O. Burgess, K.P. Tu, R.S. Oliveira, J.B. Fisher, L.S. Santiago, K.S. Simonin and A.R. Ambrose. 2007. Nighttime transpiration in woody plants from contrasting ecosystems. *Tree Physiology* **27**: 561-575.
96. Gregg, J.W., C.G. Jones and **T.E. Dawson**. 2006. Physiological and developmental effects of ozone on cottonwood growth in urban and rural sites in the vicinity of New York City. *Ecological Applications* **16**: 2368-2381.
95. Darrouzet-Nardi, A. C.M. D'Antonio and **T.E. Dawson**. 2006. Depth of water acquisition by invading shrubs and resident herbs in a Sierra Nevada montane meadow. *Plant and Soil* **285**: 31-43.
93. Burgess, S.O.O., J.A. Pitterman and **T.E. Dawson**. 2006. Hydraulic efficiency and safety of branch xylem increases with height in *Sequoia sempervirens* (D. Don) crowns. *Plant, Cell & Environment* **29**: 229-239.
93. Gaudinski, J., **T.E. Dawson**, S. Quideau, T. Schuur, J. Roden, S. Trumbore, D.R. Sandquist, S.-W. Oh and R.E. Wasylishen. 2005. A comparative analysis of cellulose extraction techniques for use with ^{13}C , ^{14}C and ^{18}O isotopic measurements. *Analytical Chemistry* **77**: 7212-7224.
92. Lee, J-E, R.S. Oliveira, **T.E. Dawson**, and I. Fung. 2005. Root functioning modifies seasonal climate. *Proceedings of the National Academy of Sciences* **102**: 17576-17581.
91. Tolle, G., D. Culler, **T. Dawson**, K. Tu, W. Hong, R. Szewczyk, J. Polastre, S. Burgess, N. Turner, D. Gay and P. Buonadonna. 2005. A Macroscope in the Redwoods. *SenSys* 218. Publication of the 3rd ACM Conference on Embedded Networked Sensor Systems; *SenSys 2005*.
90. Corbin, J.D., M.A. Thomsen, **T.E. Dawson** and C.M. D'Antonio. 2005. Summer water use by California coastal prairie grasses: fog, drought, and community composition. *Oecologia* **145**: 511-521.
89. Oliveira, R.S., **T.E. Dawson**, S.O.O. Burgess and D.C. Nepstad. 2005. Hydraulic redistribution in three Amazonian tree species. *Oecologia* **145**: 354-363.

- 88.** Santiago, L.S., K. Silvera, J.L. Andrade and **T.E. Dawson**. 2005. El uso de Isótopos Estables en Biología Tropical [English title: *The use of stable isotope techniques in tropical biology*]. Invited Review – *Interciencia* **30**: 536-542.
- 87.** Oliveira, R.S., **T.E. Dawson**, S.O.O. Burgess. 2005. Evidence for direct water absorption by pseudostems of the desiccation-tolerant plant *Vellozia flavicans* in the savannas of central Brazil. *Journal of Tropical Ecology* **21**: 585-588.
- 86.** **Dawson, T.E.** and J.K. Ward. 2005. Gender-specific ecophysiology, growth and habitat distribution in the riparian tree (*Acer negundo*), Boxelder. Pp. 129-131 In: R.J. Naiman, H. Décamps and M.E. McClain (eds.) *RIPARIA – ecology, conservation and management of streamside communities*. Elsevier Academic Press, San Diego, CA.
- 85.** Juenger, T.J., J.K. McKay, N.J. Hausmann, J. Keurentjes, S. Sen, K.A. Stowe, **T.E. Dawson**, E.L. Simms and J.R. Richards. 2005. Identification and characterization of QTL underlying whole-plant physiology in *Arabidopsis thaliana*: $\delta^{13}\text{C}$ and stomatal conductance. *Plant, Cell & Environment* **28**: 697-708.
- 84.** Templer, P.H., G.M. Lovett, K. Weathers, S. Findlay, and **T.E. Dawson**. 2005. Influences of tree species on ^{15}N sinks and forest N retention in the Catskill Mountains, New York, USA. *Ecosystems* **8**: 1-16.
- 83^.** Tu, K.P. and **T.E. Dawson**. 2005. Partitioning ecosystem respiration using stable carbon isotope analyses of CO_2 . Pp. 125-153, In: L.B. Flanagan, J.R. Ehleringer & D.E. Pataki (eds) *Stable Isotopes and Biosphere-Atmosphere Interactions: Processes and Biological Controls*. Elsevier Academic Press, San Diego, CA.
- 82.** Hausmann, N.J., T.E. Juenger, S. Sen, K.A. Stowe, **T.E. Dawson** and E.L. Simms. 2005. Quantitative trait loci (QTL) affecting $\delta^{13}\text{C}$ and response to soil water availability in *Arabidopsis thaliana*. *Evolution* **59**: 81-96.
- 81.** Kennedy, P.G., N.J. Hausmann, E.H. Wenk, and **T.E. Dawson**. 2004. The importance of seed reserves for seedling performance: an integrated approach using morphological, physiological, and stable isotope techniques. *Oecologia* **141**: 547-554.
- 80.** Templer, P.H. and **T.E. Dawson**. 2004. Nitrogen uptake by four tree species of the Catskill Mountains, New York: implications for forest N dynamics. *Plant and Soil* **262**: 251-261.
- 79.** Burgess, S.O.O. and **T.E. Dawson**. 2004. The contribution of fog to the water relations of *Sequoia sempervirens* (D.Don): foliar uptake and prevention of dehydration. *Plant, Cell & Environment* **27**: 1023-1034.

78. Ludwig, F., **T.E. Dawson**, H. De Kroon, F. Berendse and H.H.T. Prins. 2004. Belowground competition between trees and grasses may overwhelm the facilitative effects of hydraulic lift. *Ecology Letters* **7**: 623-631.
77. **Dawson, T.E.**, J.K. Ward, and J.R. Ehleringer. 2004. Temporal scaling of physiological responses from gas exchange to tree rings: a gender-specific study of *Acer negundo* (boxelder) under different conditions. *Functional Ecology* **18**: 212-222.
76. Feild, T.S., N.C. Arens, J.A. Doyle, **T.E. Dawson** and M.A. Donoghue. 2004. Dark and Disturbed: a new image of early angiosperm ecology. *Paleobiology* **30**: 82-107.
75. Reich, A., J.J. Ewel, N.M. Nadkarni, **T.E. Dawson** and R.D. Evans. 2003. Nitrogen isotope ratios shift with plant size in tropical bromeliads. *Oecologia* **442**: 587-590.
74. M.L. Cadenasso, S.T.A. Pickett, K.C. Weathers, S Bell, T.L. Benning M.M. Carreiro, and **T. Dawson**. 2003. An Interdisciplinary and Synthetic Approach to Ecological Boundaries. *BioScience* **53**: 717-722.
73. Gregg, J.W., C.G. Jones and **T.E. Dawson**. 2003. Urbanization, Air Pollution and Tree Growth in the Vicinity of New York City. *Nature* **424**: 183-187.
72. Feild, T.S., N.C. Arens, and **T.E. Dawson**. 2003. Emerging perspectives on the ancestral ecophysiology of angiosperms. *International Journal of Plant Sciences* **164** (3 Suppl.): S129-S142.
71. Ludwig, F., **T.E. Dawson**, H. De Kroon, F. Berendse and H.H.T. Prins. 2003. Hydraulic Lift in *Acacia tortilis* trees on an East African savanna. *Oecologia* **134**: 293-300.
70. **Dawson, T.E.**, S. Mambelli, A.H. Plamboeck, P.H. Templer and K.P. Tu. 2002. Stable Isotopes in Plant Ecology. *Annual Review of Ecology and Systematics* **33**: 507-559.
69. Traw, B.M and **T.E. Dawson**. 2002. Reduced performance of two specialist herbivores (Lepidoptera:Pieridae, Coleoptera: Chrysomelidae) on induced leaves of black mustard. *Environmental Entomology* **31**: 714-722.
68. Traw, B.M. and **T.E. Dawson**. 2002. Differential induction of trichomes by three herbivores of black mustard. *Oecologia* **131**: 526-532.
67. Ward, J.K., **T.E. Dawson**, and J.R. Ehleringer. 2002. Responses of *Acer negundo* genders to inter-annual differences in water availability determined from carbon isotope ratios of tree ring cellulose. *Tree Physiology* **22**: 339-346.

66. Feddes, R.A. H. Hoff, M. Bruen, **T. Dawson**, P. de Rosnay, P. Dirmeyer, R.B. Jackson, P. Kabat, A. Kleidon, A. Lilly, and A.J. Pitman. 2001. Modeling Root Water Uptake in Hydrological and Climate Models. *Bulletin of the American Meteorological Society* **82 (12)**: 2797-2810.
65. Burgess, S.S.O., E. Dubinsky and **T.E. Dawson**. 2001. The role of fog in the ecology and water relations of coast redwood, *Sequoia sempervirens*. Pp. 121-124 In: R.S. Schemenauer and H. Puxbaum (eds) Proceedings of the Second International Conference on Fog and Fog Collection. IDRC/CRDI Publication, Ottawa, Canada.
64. Tu, K, Brooks P.D, and **Dawson T.E.** 2001. Using septum capped vials with continuous flow isotope ratio mass spectrometric analysis of atmospheric CO₂ for Keeling plot applications. *Rapid Communications in Mass Spectrometry* **15**: 952-956.
63. **Dawson, T.E.** 2001. Physiological Ecology. Pp. 5146-5152 In: *The McGraw-Hill Encyclopedia of Science and Technology*, New York.
- 62[^]. **Dawson, T.E.** and P.D. Brooks. 2001. *Fundamentals of stable isotope chemistry and measurement*. Pp. 1-18 In: M. Unkovich, A. McNeill, J. Pate and J. Gibbs (eds.). *The Application of Stable Isotope Techniques to Study Biological Processes and the Functioning of Ecosystems*. Kluwer Academic Publishers, Dordrecht / Boston / London.
61. DeLucia, E.H., J.S. Coleman, **T.E. Dawson** and R.B. Jackson. 2001. Plant Physiological Ecology: Challenges and New Horizons. *New Phytologist* **149**: 12-16.
60. Jackson, R.B., J.S. Sperry, and **T.E. Dawson**. 2000. Root water uptake and transport: using physiological processes in global predictions. *Trends in Plant Science* **5**: 484-491.
59. Ackerly, D.D., S.A. Dudley, S.E. Sultan, J. Schmitt, J.S. Coleman, R. Linder, D.R. Sandquist, M.A. Geber, A.S. Evans, **T.E. Dawson** and M.J. Lechowicz. 2000. The evolution of plant ecophysiological traits: recent advances and future directions. *BioScience* **50(11)**: 979-995.
- 58[^]. Ehleringer, J.R. J. Roden and **T.E. Dawson**. 2000. Assessing ecosystem-level water relations through stable isotope analyses. Pp. 181-198 (Chapter 12) In: O.E. Sala, R.B. Jackson, H.A. Mooney and R.W. Howarth [eds.], *Methods in Ecosystem Science*. Springer-Verlag, New York.
57. Burgess, S.S.O, J.S. Pate, M.A. Adams and **T.E. Dawson**. 2000. Seasonal water acquisition and redistribution in the Australian woody phreatophyte, *Banksia prionotes*. *Annals of Botany* **85**: 215-224.

56. Pausch, R.C., E.E. Grote and **T.E. Dawson**. 2000. Estimating water use by sugar maple trees: important considerations when using heat-pulse methods in trees with large functional sapwood volumes. *Tree Physiology* **20**: 217-227.
- 55[^]. Sawyer, J.O., S.C. Sillett, W.J. Libby, **T.E. Dawson**, J.H. Popenoe, D.L. Largent, R. Van Pelt, S.D. Veirs Jr., R.F. Noss, D.A. Thornburgh and P. Del Tredici. 2000. Redwood Trees, Communities and Ecosystems: A closer look. Pp. 81-118 In: R. F. Noss [ed.] *The Redwood Forest: History, Ecology, and Conservation of the Coastal California Redwoods*. Island Press, Covelo, CA.
54. Pate, J.S. and **T.E. Dawson**. 1999. Novel Techniques for assessing the performance in uptake and utilization of carbon, water and nutrients by woody plants: Implications for designing agricultural mimics. *Agroforestry Systems* **45**: 245-276.
[Also reprinted in, T. Lefroy, R. Hobbs, J. Pate and M. O'Connor (eds.) *Agriculture as a Mimic for Natural Ecosystems*. Kluwer Scientific Publishers].
- 53[^]. Geber, M.A., **T.E. Dawson**, and L.F. Delph (editors). 1999. *Sexual and gender dimorphism in flowering plants*. Springer-Verlag.
- 52[^]. **Dawson, T.E.** and M.A. Geber. 1999. Sexual dimorphism in physiology and morphology. pp. 175-215 In: M.A. Geber, T.E. Dawson, and L.F. Delph [eds.]. *Sexual and gender dimorphism in flowering plants*. Springer-Verlag.
51. **Dawson, T.E.** 1998. Fog in the California Redwood forest: ecosystem inputs and use by plants. *Oecologia* **117**: 476-485.
50. Pate, J.S., W.D. Jeschke, **T.E. Dawson**, C. Raphael, W. Hartung, and B.J. Bowen. 1998. Growth and seasonal utilization of water and nutrients by *Banksia prionotes* Lindley. *Australian Journal of Botany* **46**: 511-532.
49. **Dawson, T.E.** and P.E. Vidiella. 1998. Plant-fog interactions in California and Chile. Pp. 225-228, In: Schemenauer RS, Bridgman H (eds) Proceedings of the First International Conference on Fog and Fog Collection. IDRC/CRDI Publication, Ottawa, Canada.
- 48[^]. **Dawson, T.E.** and J.R. Ehleringer. 1998. Plants, Isotopes, and Water use: A catchment-level perspective. Pp. 165-202, In: C. Kendall & J.J. McDonnell [eds.], *Isotope Tracers in Catchment Hydrology*. Elsevier Science, Amsterdam.
47. Feild, T.S. and **T.E. Dawson**. 1998. Water sources used by epiphytic, hemiepiphytic, and arborescent *Didymopanax pittieri* in a tropical cloud forest. *Ecology* **79**: 1448-1452.

46. Ebdon, J.S., A.M. Petrovic, and T.E. Dawson. 1998. Relationship between carbon isotope discrimination, water use efficiency and evapotranspiration rate in kentucky bluegrass turfgrass. *Crop Science* **38**: 157-162.
45. Dawson, T.E. and R. Fry. 1998. Agriculture in Nature's Image. *Trends in Ecology and Evolution* **13**: 50-51.
44. Caldwell, M.M., T.E. Dawson, and J.R. Richards. 1998. Hydraulic Lift: consequences of water efflux from the roots of plants. *Oecologia* **113**: 151-161.
43. Dawson, T.E. 1998. Water loss from tree roots influences soil water and nutrient status and plant performance. *Current Topics in Plant Physiology* **18**: 235-250 [entitled: *Radical Biology: Advances and Perspectives in the Function of Plant Roots*. HE Flores, JP Lynch and DM Eissenstat (eds). American Society of Plant Physiologists, Rockville, MD, USA].
- 41[^]. Dawson, T.E., R.C. Pausch, and H.M. Parker. 1998. The role of hydrogen and oxygen stable isotopes in understanding water movement along the soil-plant-atmospheric continuum. pp. 169-183 In: H. Griffiths [ed.], *Stable Isotopes and the Integration of Biological, Ecological and Geochemical Processes*. BIOS Scientific Publishers, London.
40. Emerman, S.H. and T.E. Dawson. 1997. Experiments using split-root chambers on water uptake from soil macropores by sunflower. *Plant and Soil* **189**: 57-63.
39. Schwarz, P.A., T.J. Fahey, and T.E. Dawson. 1997. Seasonal soil and air temperature effects on photosynthesis in red spruce (*Picea rubens* Sarg.) saplings. *Tree Physiology* **17**: 187-194.
38. Geber, M.A. and T.E. Dawson. 1997. Genetic variation in stomatal and biochemical limitations to photosynthesis in the annual plant, *Polygonum arenastrum*. *Oecologia* **109**: 535-546.
37. Feild, T.S., R.O. Lawton, and T.E. Dawson. 1996. Comparative nutrient relations in canopy-rooted and ground-rooted *Didymopanax pittieri* (Araliaceae) hemiepiphytes in a wind-exposed tropical montane rain forest. *Biotropica* **28**: 774-776.
36. Emerman, S.H. and T.E. Dawson. 1996 a. Hydraulic lift and its influence on the water content of the rhizosphere: an example from sugar maple, *Acer saccharum*. *Oecologia* **108**: 273-278.
35. Emerman, S.H. and T.E. Dawson. 1996 b. The role of macropores in the cultivation of bell pepper in salinized soil. *Plant and Soil* **181**: 241-249.

- 34. Dawson, T.E.** and J.S. Pate. 1996c. Seasonal water uptake and movement in root systems of Australian phraetophytic plants of dimorphic root morphology: a stable isotope investigation. *Oecologia* **107**: 13-20.
- 33. Dawson, T.E.** 1996b. Determining water use by trees and forests from isotopic, energy balance, and transpiration analyses: the role of tree size and hydraulic lift. *Tree Physiology* **16**: 263-272.
- 32. Dawson, T.E.** 1996a. The use of fog precipitation by plants in coastal redwood forests. pp. 90-93, In: J. LeBlanc [ed.] *Proceed. Conf. on Coastal Redwood Ecology and Management*. Humboldt State Uni., Uni. of Calif. Coop. Exten. Forest. Publ.
- 31. Dawson, T.E.** 1995. L' integrazione dei metodi basati sugli isotopi stabili nello studio delle relazioni idriche e del bilancio del carbonio in specie legnose. *Monti e Boschi* **95(3)**: 41-49. {english title; The integration of stable isotope methods into studies of woody plant carbon and water balance (commissioned review for) Mountains and Forests; the journal of the Italian Forestry Society}.
- 30. Dias-Filho, M.B., J.A. Wise, and T.E. Dawson.** 1995. Irradiance and water deficit effects on gas exchange behavior of two C₃ Amazonian weeds. *Pesq. agropec. bras., Brasília* **30**: 319-325.
- 29. Dias-Filho, M.B. and T.E. Dawson.** 1995. Physiological response to soil moisture stress in two Amazonian gap-invader species. *Functional Ecology* **9**: 213-221.
- 28. Emerman, S.H. and T.E. Dawson.** 1995. Ecological implications of soil macropores. Proceedings of the American Geophysical Union - *Hydrology Days* **15**: 33-46.
- 27. Norman, J. K., A.K. Sakai, S.G. Weller and T.E. Dawson.** 1995. Inbreeding depression in morphological and physiological traits of *Schiedea lygatei* (Caryophyllaceae) in two environments. *Evolution* **49**: 297-306.
- 26. Marshall, J.D., T.E. Dawson and J.R. Ehleringer.** 1994. Integrated nitrogen, carbon, and water relations of a xylem-tapping mistletoe following nitrogen fertilization of the host. *Oecologia* **100**: 430-438.
- 25. Dawson, T.E.** 1993a. Woodland water balance. *Trends in Ecology and Evolution* **8**: 120-121.
- 24. Dawson, T.E.** 1993b. Hydraulic lift and water use by plants: implications for water balance, performance, and plant-plant interactions. *Oecologia* **95**: 565-574.

- 23[^]. Dawson, T.E.** 1993c. Water sources of plants as determined from xylem-water isotopic composition: perspectives on plant competition, distribution, and water relations. pp 465-496 In: J.R. Ehleringer, A.E. Hall, and G.D. Farquhar [eds.], *Stable Isotopes and Plant Carbon/Water Relations*. Academic Press, Inc., San Diego.
- 22. Dawson, T.E.** and J.R. Ehleringer. 1993a. Gender-specific physiology, carbon isotope discrimination, and habitat distribution in boxelder, *Acer negundo*. *Ecology* **74**: 798-815.
- 21. Dawson, T.E.** and J.R. Ehleringer. 1993b. Isotopic enrichment of water in the "woody" tissues of plants: Implications for water source, water uptake and other studies which use stable isotopic composition of cellulose. *Geochimica et Cosmochimica Acta* **57**: 3487-3492.
- 20[^]. Dawson, T.E.** and F.S. Chapin, III. 1993. Grouping plants by their form-function characteristics as an avenue for simplification in scaling from leaves to landscapes. pp. 313-319 In: J.R. Ehleringer and C. B. Field [eds.], *Scaling physiological Processes: Leaf to Globe* Academic Press Inc., San Diego.
- 19[^]. Geber, M.A.** and **T.E. Dawson.** 1993. Evolutionary Responses of Plants to Global Change. pp. 179-197, In: P. Kareiva, P., Kingsolver, J., and Huey, R. [eds]. *Biotic Interactions and Global Change*. Sinauer Associates, Publishers, New York.
- 18. Galen, C., T.E. Dawson,** and M.L. Stanton. 1993. Carpels as leaves: meeting the carbon costs of reproduction in an alpine buttercup. *Oecologia* **95**: 187-193.
- 17. Dawson, T.E.** and L.C. Bliss. 1993. Plants as mosaics: leaf-, ramet-, and gender-level variation in the physiology of the dwarf willow, *Salix arctica*. *Functional Ecology* **7**: 293-304.
- 16. Marshall, J.D., T.E. Dawson,** and J.R. Ehleringer. 1993. Gender-related differences in physiology are not related to host quality in the xylem-tapping mistletoe, *Phoradendron juniperinum* . *American Journal of Botany* **80**: 641-645.
- 15. Ehleringer, J.R.** and **T.E. Dawson.** 1992. Water uptake by plants: perspectives from stable isotope composition. *Plant, Cell and Environment* **15**: 1073-1082.
- 14[^]. Oberbauer, S.F.** and **T.E. Dawson.** 1992. Water relations of Arctic vascular plants. pp. 259-279 In: Chapin, F.S. III, R. Jefferies, G. Shaver, J. Reynolds, and J. Svoboda [eds.], *Physiological ecology of arctic plants: implications for climate change*. Academic Press Inc., San Diego.

13. **Dawson, T.E.** and J.R. Ehleringer. 1991. Streamside trees that do not use stream water. *Nature* **350**: 335-337.
12. **Dawson, T.E.** and J.R. Ehleringer. 1991. Ecological correlates of seed mass variation in *Phoradendron juniperinum*, a xylem-tapping mistletoe. *Oecologia* **85**: 332-342.
11. Smedley, M.P., **T.E. Dawson**, J.P. Comstock, L.A. Donovan, D.E. Sherrill, C.S. Cook, and J.R. Ehleringer. 1991. Seasonal carbon isotope discrimination in a grassland community. *Oecologia* **85**: 314-320.
10. Geber, M.A. and **T.E. Dawson**. 1990. Genetic variation in and covariation between leaf gas exchange, morphology and development in *Polygonum arenastrum*, an annual plant. *Oecologia* **85**: 153-158.
9. **Dawson, T.E.**, E.J. King, and J.R. Ehleringer. 1990a. Age structure of *Phoradendron juniperinum*, a xylem-tapping mistletoe: inferences from a non-destructive morphological index of age. *American Journal of Botany* **77**: 573-583.
8. **Dawson, T.E.**, J.R. Ehleringer, and J.D. Marshall. 1990b. Sex-ratio and reproductive variation in the mistletoe *Phoradendron juniperinum*. *American Journal of Botany* **77**: 584-589.
7. **Dawson, T.E.** 1990. Spatial and physiological overlap of three co-occurring alpine willows. *Functional Ecology* **4**: 13-25.
6. **Dawson, T.E.** and L.C. Bliss. 1989a. Intraspecific variation in the water relations of *Salix arctica*, an arctic and alpine dwarf willow. *Oecologia* **79**: 322-331.
5. **Dawson, T.E.** and L.C. Bliss. 1989b. Patterns of water use and the tissue water relations in the dioecious shrub, *Salix arctica*: the physiological basis for habitat partitioning between the sexes. *Oecologia* **79**: 332-343.
4. Charnov, E.L. and **T.E. Dawson**. 1989. Environmental sex determination with overlapping generations. *The American Naturalist* **134**: 806-816.
3. Kukul, O. and **T.E. Dawson**. 1989. Temperature, and food quality influences on feeding behavior, assimilation efficiency and growth rate in arctic woolly-bear caterpillars. *Oecologia* **79**: 526-532.
2. ^Bliss, L.C., J. Braatne, D. Chapin, **T. Dawson**, and P. Galland. 1988. Growth form and ecophysiology of western North American alpine plants. pp. 29-33 In: W. Xia [ed.] *Alpine Meadow Ecosystems*. Biology Institute Press, Xining, China.

1. **Dawson, T.E.** and L.C. Bliss. 1987. Species patterns, edaphic characteristics, and plant water potential in a high-arctic brackish marsh. *Canadian Journal Botany* **65**: 863-868.