

Anna L Jacobsen

List of Publications by Year in descending order

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Version: 2024-02-01

69
papers

6,052
citations

117453

34
h-index

128067

60
g-index

74
all docs

74
docs citations

74
times ranked

5771
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Global convergence in the vulnerability of forests to drought. <i>Nature</i> , 2012, 491, 752-755. | 13.7 | 1,944 |
| 2 | Weak tradeoff between xylem safety and xylem-specific hydraulic efficiency across the world's woody plant species. <i>New Phytologist</i> , 2016, 209, 123-136. | 3.5 | 466 |
| 3 | Do Xylem Fibers Affect Vessel Cavitation Resistance?. <i>Plant Physiology</i> , 2005, 139, 546-556. | 2.3 | 351 |
| 4 | Relationships among xylem transport, biomechanics and storage in stems and roots of nine Rhamnaceae species of the California chaparral. <i>New Phytologist</i> , 2007, 174, 787-798. | 3.5 | 297 |
| 5 | CAVITATION RESISTANCE AMONG 26 CHAPARRAL SPECIES OF SOUTHERN CALIFORNIA. <i>Ecological Monographs</i> , 2007, 77, 99-115. | 2.4 | 219 |
| 6 | Towards understanding resprouting at the global scale. <i>New Phytologist</i> , 2016, 209, 945-954. | 3.5 | 197 |
| 7 | Xylem density, biomechanics and anatomical traits correlate with water stress in 17 evergreen shrub species of the Mediterranean-type climate region of South Africa. <i>Journal of Ecology</i> , 2007, 95, 171-183. | 1.9 | 176 |
| 8 | Conflicting demands on angiosperm xylem: Tradeoffs among storage, transport and biomechanics. <i>Plant, Cell and Environment</i> , 2017, 40, 897-913. | 2.8 | 135 |
| 9 | Cavitation resistance and seasonal hydraulics differ among three arid Californian plant communities. <i>Plant, Cell and Environment</i> , 2007, 30, 1599-1609. | 2.8 | 118 |
| 10 | Mortality of resprouting chaparral shrubs after a fire and during a record drought: physiological mechanisms and demographic consequences. <i>Global Change Biology</i> , 2014, 20, 893-907. | 4.2 | 115 |
| 11 | A global analysis of xylem vessel length in woody plants. <i>American Journal of Botany</i> , 2012, 99, 1583-1591. | 0.8 | 109 |
| 12 | Forest and woodland replacement patterns following drought-related mortality. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 29720-29729. | 3.3 | 99 |
| 13 | Linkage between water stress tolerance and life history type in seedlings of nine chaparral species (Rhamnaceae). <i>Journal of Ecology</i> , 2008, 96, 1252-1265. | 1.9 | 92 |
| 14 | Comparative community physiology: nonconvergence in water relations among three semi-arid shrub communities. <i>New Phytologist</i> , 2008, 180, 100-113. | 3.5 | 91 |
| 15 | No evidence for an open vessel effect in centrifuge-based vulnerability curves of a long-vesselled liana (<i>Vitis vinifera</i>). <i>New Phytologist</i> , 2012, 194, 982-990. | 3.5 | 91 |
| 16 | The standard centrifuge method accurately measures vulnerability curves of long-vesselled olive stems. <i>New Phytologist</i> , 2015, 205, 116-127. | 3.5 | 89 |
| 17 | Chaparral Shrub Hydraulic Traits, Size, and Life History Types Relate to Species Mortality during California's Historic Drought of 2014. <i>PLoS ONE</i> , 2016, 11, e0159145. | 1.1 | 83 |
| 18 | LIFE HISTORY TYPE AND WATER STRESS TOLERANCE IN NINE CALIFORNIA CHAPARRAL SPECIES (RHAMNACEAE). <i>Ecological Monographs</i> , 2007, 77, 239-253. | 2.4 | 80 |

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|----|---|-----|-----------|
| 19 | Xylem function of arid land shrubs from California, USA: an ecological and evolutionary analysis. <i>Plant, Cell and Environment</i> , 2009, 32, 1324-1333. | 2.8 | 75 |
| 20 | Excising stem samples underwater at native tension does not induce xylem cavitation. <i>Plant, Cell and Environment</i> , 2015, 38, 1060-1068. | 2.8 | 71 |
| 21 | Extensive drought-associated plant mortality as an agent of type conversion in chaparral shrublands. <i>New Phytologist</i> , 2018, 219, 498-504. | 3.5 | 61 |
| 22 | Xylem root and shoot hydraulics is linked to life history type in chaparral seedlings. <i>Functional Ecology</i> , 2010, 24, 70-81. | 1.7 | 54 |
| 23 | Vessel Redundancy: Modeling Safety In Numbers. <i>IAWA Journal</i> , 2007, 28, 373-388. | 2.7 | 51 |
| 24 | Large volume vessels are vulnerable to water-stress-induced embolism in stems of poplar. <i>IAWA Journal</i> , 2019, 40, 4-54. | 2.7 | 49 |
| 25 | Xylem vulnerability to cavitation can be accurately characterised in species with long vessels using a centrifuge method. <i>Plant Biology</i> , 2013, 15, 496-504. | 1.8 | 47 |
| 26 | The Biology of Mediterranean-Type Ecosystems. , 2018, , . | | 46 |
| 27 | Functional lifespans of xylem vessels: Development, hydraulic function, and post-function of vessels in several species of woody plants. <i>American Journal of Botany</i> , 2018, 105, 142-150. | 0.8 | 44 |
| 28 | Wood structure and function change with maturity: Age of the vascular cambium is associated with xylem changes in current-year growth. <i>Plant, Cell and Environment</i> , 2019, 42, 1816-1831. | 2.8 | 44 |
| 29 | Direct comparison of four methods to construct xylem vulnerability curves: Differences among techniques are linked to vessel network characteristics. <i>Plant, Cell and Environment</i> , 2019, 42, 2422-2436. | 2.8 | 44 |
| 30 | Mechanisms for tolerating freeze-thaw stress of two evergreen chaparral species: <i>Rhus ovata</i> and <i>Malosma laurina</i> (Anacardiaceae). <i>American Journal of Botany</i> , 2005, 92, 1102-1113. | 0.8 | 42 |
| 31 | Identifying which conduits are moving water in woody plants: a new HRCT-based method. <i>Tree Physiology</i> , 2018, 38, 1200-1212. | 1.4 | 40 |
| 32 | Xylem Transport Safety and Efficiency Differ among Fynbos Shrub Life History Types and between Two Sites Differing in Mean Rainfall. <i>International Journal of Plant Sciences</i> , 2012, 173, 474-483. | 0.6 | 39 |
| 33 | Factors Determining Mortality of Adult Chaparral Shrubs in an Extreme Drought Year in California. <i>Aliso</i> , 2013, 31, 49-57. | 0.4 | 39 |
| 34 | Water stress tolerance of shrubs in Mediterranean-type climate regions: Convergence of fynbos and succulent karoo communities with California shrub communities. <i>American Journal of Botany</i> , 2009, 96, 1445-1453. | 0.8 | 38 |
| 35 | Geographic And Seasonal Variation In Chaparral Vulnerability To Cavitation. <i>Madroño</i> , 2014, 61, 317-327. | 0.3 | 38 |
| 36 | Structural determinants of increased susceptibility to dehydration-induced cavitation in post-fire resprouting chaparral shrubs. <i>Plant, Cell and Environment</i> , 2016, 39, 2473-2485. | 2.8 | 34 |

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|----|---|-----|-----------|
| 37 | Intra-organismal variation in the structure of plant vascular transport tissues in poplar trees. <i>Trees - Structure and Function</i> , 2018, 32, 1335-1346. | 0.9 | 34 |
| 38 | Grapevine Xylem Development, Architecture, and Function. , 2015, , 133-162. | | 29 |
| 39 | Single vessel air injection estimates of xylem resistance to cavitation are affected by vessel network characteristics and sample length. <i>Tree Physiology</i> , 2016, 36, 1247-1259. | 1.4 | 28 |
| 40 | Embolism resistance of different aged stems of a California oak species (<i>Quercus douglasii</i>): optical and microCT methods differ from the benchtop-dehydration standard. <i>Tree Physiology</i> , 2020, 40, 5-18. | 1.4 | 27 |
| 41 | Allocation tradeoffs among chaparral shrub seedlings with different life history types (Rhamnaceae). <i>American Journal of Botany</i> , 2012, 99, 1464-1476. | 0.8 | 26 |
| 42 | Trade-offs among transport, support, and storage in xylem from shrubs in a semiarid chaparral environment tested with structural equation modeling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3 | 23 |
| 43 | Integrative Xylem Analysis of Chaparral Shrubs. , 2015, , 189-207. | | 21 |
| 44 | On research priorities to advance understanding of the safetyâ€“efficiency tradeoff in xylem. <i>New Phytologist</i> , 2016, 211, 1156-1158. | 3.5 | 21 |
| 45 | Highâ€“resolution computed tomography reveals dynamics of desiccation and rehydration in fern petioles of a desiccationâ€“tolerant fern. <i>New Phytologist</i> , 2019, 224, 97-105. | 3.5 | 19 |
| 46 | Going with the flow: Structural determinants of vascular tissue transport efficiency and safety. <i>Plant, Cell and Environment</i> , 2018, 41, 2715-2717. | 2.8 | 17 |
| 47 | Starch storage capacity of sapwood is related to dehydration avoidance during drought. <i>American Journal of Botany</i> , 2021, 108, 91-101. | 0.8 | 15 |
| 48 | Hydraulic function and conduit structure in the xylem of five oak species. <i>IAWA Journal</i> , 2021, 42, 279-298. | 0.5 | 14 |
| 49 | Factors controlling drought resistance in grapevine (<i>Vitis vinifera</i>): application of a new microCT method to assess functional embolism resistance. <i>American Journal of Botany</i> , 2020, 107, 618-627. | 0.8 | 12 |
| 50 | Dieback and mortality of South African fynbos shrubs is likely driven by a novel pathogen and pathogenâ€“induced hydraulic failure. <i>Austral Ecology</i> , 2012, 37, 227-235. | 0.7 | 10 |
| 51 | Vulnerability to cavitation of central California <i>Arctostaphylos</i> (Ericaceae): a new analysis. <i>Oecologia</i> , 2013, 171, 329-334. | 0.9 | 10 |
| 52 | Plant Community Water Use and Invasibility of Semi-Arid Shrublands by Woody Species in Southern California. <i>MadroÃ±o</i> , 2009, 56, 213-220. | 0.3 | 9 |
| 53 | Covariation between leaf hydraulics and biomechanics is driven by leaf density in Mediterranean shrubs. <i>Trees - Structure and Function</i> , 2019, 33, 507-519. | 0.9 | 9 |
| 54 | Adaptive variation among oaks in wood anatomical properties is shaped by climate of origin and shows limited plasticity across environments. <i>Functional Ecology</i> , 0, , . | 1.7 | 9 |

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|----|--|-----|-----------|
| 55 | Xylem biomechanics, water storage, and density within roots and shoots of an angiosperm tree species. <i>Journal of Experimental Botany</i> , 2021, 72, 7984-7997. | 2.4 | 8 |
| 56 | Diversity in conduit and pit structure among extant gymnosperm taxa. <i>American Journal of Botany</i> , 2021, 108, 559-570. | 0.8 | 5 |
| 57 | Post-Fire Ecophysiology of Endemic Chaparral Shrub Seedlings From Santa Catalina Island, Southern California. <i>Madroño</i> , 2018, 65, 106-116. | 0.3 | 4 |
| 58 | HYDRAULICS OF PINUS (SUBSECTION PONDEROSAE) POPULATIONS ACROSS AN ELEVATION GRADIENT IN THE SANTA CATALINA MOUNTAINS OF SOUTHERN ARIZONA. <i>Madroño</i> , 2021, 67, . | 0.3 | 4 |
| 59 | Seasonal patterns of increases in stem girth, vessel development, and hydraulic function in deciduous tree species. <i>Annals of Botany</i> , 2022, , . | 1.4 | 4 |
| 60 | Node frequency alters stem biomechanics and hydraulics in four deciduous woody species. <i>Journal of Wood Science</i> , 2020, 66, . | 0.9 | 3 |
| 61 | A Great Basin lake-level response to 38â€“34â€“ Dansgaardâ€“Oeschger oscillations. <i>Journal of Paleolimnology</i> , 2019, 61, 263-278. | 0.8 | 1 |
| 62 | A seedâ€“seedling conflict for <i>Atriplex polycarpa</i> shrubs competing with exotic grasses and their residual dry matter. <i>Ecosphere</i> , 2021, 12, e03455. | 1.0 | 1 |
| 63 | Planning for the future. , 2018, , . | | 0 |
| 64 | Characteristics of Mediterranean-Type Ecosystems. , 2018, , . | | 0 |
| 65 | Form and Function of Mediterranean Shrublands. , 2018, , . | | 0 |
| 66 | Organisms and their Interactions. , 2018, , . | | 0 |
| 67 | Diversity and Community Structure. , 2018, , . | | 0 |
| 68 | Evolution and Diversity. , 2018, , . | | 0 |
| 69 | Ecosystems processes. , 2018, , . | | 0 |