UNIVERSIDADE FEDERAL DO CEARÁ
CENTRO DE CIÊNCIAS
DEPARTAMENTO DE BIOLOGIA
PROGRAMA DE PÓS-GRADUAÇÃO EM ECOLOGIA E RECURSOS NATURAIS

EMENTA DE DISCIPLINA – PPGERN

Disciplina: Adaptações Morfofuncionais de Plantas Vasculares

Title (English): Morphofunctional Adaptations of Vascular Plants

Professor(a): Profa. Dra. Arlete Aparecida Soares

Ementa:

Curso teórico-prático: Diversidade morfo-anatômica e respostas às variações do ambiente; Plasticidade fenotípica; Respostas morfo-anatômicas a estresses ambientais; Xeromorfismo e escleromorfismo; Anatomia de hidrófitas em lagoas intermitentes; Diversidade estrutural e estratégias adaptativas de diferentes grupos funcionais da caatinga; Adaptações de plantas de afloramentos rochosos (inselbergs) do semi-árido; Interações entre plantas (estrutras de secreção) e animais.

Bibliografia:

Boanares D., Ferreira B.G., Kozovits A.R., Sousa H.C., Isaias R.M.S., França M.G.C. (2018) Pectin and cellulose cell wall composition enables different strategies to leaf water uptake in plants from tropical fog mountain. Plant Physiology and Biochemistry, 122, 57–64. doi:10.1016/j.plaphy.2017.11.005. Cosme, L. H. M. ; Schietti, J.; Costa, F. R. C. ; Oliveira, R.S. 2017. The importance of hydraulic architecture to the distribution patterns of trees in a central Amazonian forest. NEW PHYTOLOGIST, v. 215, p. 113-125. Dawson T.E., Goldsmith G.R. (2018) The value of wet leaves. New Phytologist, 219, 1156–1169. doi:10.1111/nph.15307. Gerlein-Safdi C., Koohafkan M.C., Chung M., Rockwell F.E., Thompson S., Caylor K.K. (2018) Dew deposition suppresses transpiration and carbon uptake in leaves. Agricultural and Forest Meteorology, 259, 305–316. doi:10.1016/j.agrformet.2018.05.015. HACKE, U. 2015. Functional and Ecological Xylem Anatomy. Springer International Publishing, Switzerland, 281p. Anatomia Vegetal. 3ª. Ed, Editora UFV, Viçosa, Minas Gerais. Hochberg U., Rockwell F.E., Holbrook N.M., Cochard H. (2018) Iso/Anisohydry: A Plant–Environment Interaction Rather Than a Simple Hydraulic Trait. Trends in Plant Science, 23, 112–120. doi:10.1016/j.tplants.2017.11.002. Lavoie-Lamoureux A., Sacco D., Risse P.A., Lovisolo C. (2017) Factors influencing stomatal conductance in response to water availability in grapevine: a meta-analysis. Physiologia Plantarum, 159, 468–482. doi:10.1111/ppl.12530. Hochberg U., Rockwell F.E., Holbrook N.M., Cochard H. (2018) Iso/Anisohydry: A Plant–Environment Interaction Rather Than a Simple Hydraulic Trait. Trends in Plant Science, 23, 112–120. doi:10.1016/j.tplants.2017.11.002. Holanda et al. 2019. How do leaf wetting events affect gas exchange and leaf lifespan of plants from seasonally dry tropical vegetation?. PLANT BIOLOGY, v. 21(6): 1097-1109 BENTLEY, B. & ELIAS, T.S. 1983. The biology of nectaries. Columbia University Press, New York. Nguyen, H. T. ; Meir P.; Sack, L. ; Evans, J. R. ; Oliveira, Rafael S. ; Ball, M.C.2017 . Leaf water storage increases with salinity and aridity in the mangrove : integration of leaf structure, osmotic adjustment and access to multiple water sources. PLANT CELL AND ENVIRONMENT, v. 40, p. 1576-1591, Oliveira, Rafael S.; Abrahão, A. ; Pereira, C.; TEODORO, G. S. ; Brum, Mauro ; ALCANTARA, S.; LAMBERS, H.. 2016.

Ecophysiology of Campos Rupestres Plants. Ecology and Conservation of Mountaintop grasslands in Brazil. 1ed.: Springer International Publishing, v. , p. 227-272. Evert , R. F. Esau´s. 2006. Pplant Anatomy: Meristems, cells and tissues of plants body- Their structure, function and development.3ª. Ed John Wileey & Sons, Inc. New Jersey, – interscience, Pina, A. L. C. B. ; Zandavalli R.B. ; Oliveira, R. S. ; Martins, F. R. ; Soares, A. A. . Dew absorption by the leaf trichomes of Combretum leprosum in the Brazilian semiarid region. Functionla Plant Biology, v. 43, p. 851-861, 2016. FAHN, A.; CUTLER, D. F. 1992. Xerophytes. Berlin: Gebrüder Borntraeger. Fosket, D.E. 1994. Plant growth and development. Academic Press, San Diego. Larcher, W. 2003 Physiological Plant Ecology Ecophysiology and Stress Physiology of Functional Groups. Springer. Mauseth J.D. 1988. Plant anatomy. The Benjamin/Cummings Publishing Company Inc., Menlo Park. N. G. Ribeiro-Júnior ; O. S. Fagundes ; A. S. Benevenuti ; O. M. Yamashita ; A. A. B. Rossi ; M. A. C. Carvalho ; I. V. Silva. 2017. Tropical forages: morphoanatomy of plants grown in areas with the death of pasture syndrome. Brazilian Journal of Biology,77(4), pp.868-875 Pereira-Dias, F.; Santos, M. 2015. Adaptive strategies against water stress: a study comparing leaf morphoanatomy of rupicolous and epiphytic species of Gesneriaceae. Brazilian Journal of Botany, Vol.38(4), pp.911-919 Souza, T.; Castro, E.; César Magaljães, P.; Oliveira LI., L.; Trindade A., E.; Albuquerque, P. 2013. Morphophysiology, morphoanatomy, and grain yield under field conditions for two maize hybrids with contrasting response to drought stress. Acta Physiologiae Plantarum, Vol.35(11), pp.3201-3211 Lemos, R. C. C.; Costa Ssilva, D.; Albuquerque, F.; Melo-de-Pinna, G. 2017. A structural review of foliar glands in Passiflora L. (Passifloraceae); PLoS ONE, Vol.12 (11), p.1-23 Doria, L, C. ; Podadera, D.S. ; Batalha, M. A. ; Lima R. S. ; MarcatiI, C. R. 2016. Do woody plants of the Caatinga show a higher degree of xeromorphism than in the Cerrado? Flora, Vol.224, pp.244-251