

REFERENCES

- Polidoro BA, Carpenter KE, Collins L, et al. 2010. The loss of species: Mangrove extinction risk and geographic areas of global concern. *PLoS One* 5: e10095. <https://doi.org/10.1371/journal.pone.0010095>
- Spalding MD, Kainuma M, Collins L. 2010. *World atlas of mangroves*. London, Earthscan
- Mukherjee N, Dahdouh-Guebas F, Koedam N, Shanker K. 2015. An interdisciplinary framework to evaluate bioshield plantations: Insights from peninsular India. *Acta Oecologica* 63: 91-10
- Lee SY, Primavera JH, Dahdouh-Guebas F, et al. 2014. Ecological role and services of tropical mangrove ecosystems: A reassessment. *Global Ecology and Biogeography* 23: 726- 743
- Richards DR, Friess DA. 2016. Rates and drivers of mangrove deforestation in Southeast Asia, 2000- 19 2012. *Proceedings of the National Academy of Sciences* 113: 344-349.
- Badola, R. & Hussain S.A. (2003) Valuation of the Bhitarkanika Mangrove ecosystem for ecological security and sustainable resource use. Study Report. Wild life Institute of India. DehraDun. 101pp.
- Miththapala, S. (2008) *Mangroves. Coastal Ecosystems Series Volume 2* pp1 28+iii, Colombo, Sri Lanka: Ecosystems and Livelihoods Group Asia, IUCN.
- Giri, C., Ochieng, E., Tieszen, L. L., Zhu, Z., Singh, A., Loveland, T., ... & Duke, N. 2011. Status and distribution of mangrove forests of the world using earth observation satellite data. *Global Ecology and Biogeography*, 20(1), 154-159.
- Duke, N. C., Meynecke, J. O., Dittmann, S., Ellison, A. M., Anger, K., Berger, U., ... & Koedam, N. 2007. A world without mangroves? *Science*, 317(5834), 41- 42
- Das, S. (2020): Does mangrove plantation reduce coastal erosion? Assessment from the west coast of India. – *Regional Environmental Change* 20(58): 1-12.
- Walters BB, Ronnback P, Koraas J, et al. 2008. Ethnobiology, socio- economic and adaptive management of mangrove: a review. *Aquatic Botany* 89: 220-236
- Lopez-Hoffman L, Monroe I.E, Narvaez E, Martinez-Ramos M, Ackerly, D.D., 2006. Sustainability of mangrove harvesting: how do harvesters' perceptions differ from ecological analysis? *Ecol Soc* 11(2):14
- Cheng H, Wang YS, Fei J, Jiang ZY, Ye ZH (2015). Differences in root aeration, iron plaque formation and waterlogging tolerance in six mangroves along continuous tidal gradient. *Ecotoxicity* 24(7): 1659-1667.
- Woodroffe CD, Rogers K, McKee KL, Lovelock CE, Mendelssohn I, Saintilan N (2016). Mangrove sedimentation and response to relative sea-level rise. *Annu. Rev. Mar. Sci.* 8(1): 243-266.
- Fei J, Wang YS, Jiang ZY, Cheng H, Zhang JD (2015). Identification of cold tolerance genes from leaves of mangrove plant *Kandelia obovata* by suppression subtractive hybridization. *Ecotoxicol.* 24(7-8): 1686–1696.
- Pan C, Lu H, Yu J, Liu J, Liu Y, Yan C (2019). Identification of Cadmium-responsive

Kandelia obovata SOD family genes and response to Cd toxicity. *Environ. Exp. Bot.* 162: 230-238. www.dawn.com/news/1361040/mangrove-cover-shows-no-significant-increase-despite-plantation-efforts <https://www.dawn.com/authors/217/faiza-ilyas> October 01, 2017

- Zhu JK (2001). Plant salt tolerance. *Trends Plant Sci.* 6: 66-71
- Krauss KW, Lovelock CE, Mckee KL, Lopez Hoffman HL, Ewe SML, Sousa WP (2008). Environmental drivers in mangrove establishment and early development: A review. *Aquat. Bot.* 89: 105-127.
- Munns R, Tester M (2008). Mechanisms of salinity tolerance. *Annu. Rev. Plant Biol.* 59(1): 651-681.
- Tuteja N (2007). Mechanisms of high salinity tolerance in plants. *Methods in Enzymol.* 428: 419-438.
- Flowers TJ, Colmer TD (2008). Salinity tolerance in halophytes. *New Phytol.* 179(4): 945-963.
- Parida AK, Jha B (2010). Salt tolerance mechanisms in mangroves: a review. *Trees* 24(2): 199-217.
- Krishnamurthy P, Mohanty B, Wijaya E, Lee DY, Lim TM, Lin Q, Kumar PP (2017). Transcriptomics analysis of salt stress tolerance in the roots of the mangrove *Avicennia officinalis*. *Sci. Rep.* 7(1): 1- 19.
- WWF-Pakistan., 2006 Vegetation assessment. Preliminary ecological assessment, Indus for all programme
- Cornforth, W.A., Fatoyinbo, T.E., Freemantle, T.P., Petteorelli, N., 2013. Advanced land observing satellite phased array type L-Band SAR (ALOS PALSAR) to inform the conservation of mangroves: Sundarbans as a case study. *Remote Sens.* 5, 224e237
- Giri, C., Pengra, B., Zhu, Z., Singh, A., Tieszen, L.L., 2007a. Monitoring mangrove forest dynamics of the Sundarbans in Bangladesh and India using multitemporal satellite data from 1973 to 2000. *Estuar. Coast. Shelf Sci.* 73, 91e100
- Porwal, M.C., Padalia, H., Roy, P.S., 2012. Impact of tsunami on the forest and biodiversity richness in Nicobar Islands (Andaman and Nicobar Islands), India. *Biodivers. Conserv.* 21, 1267e1287.
- Satyanarayana, B., Koedam, N., De Smet, K., Di Nitto, D., Bauwens, M., Jayatissa, L.P., Cannicci, S., Dahdouh-Guebas, F., 2011. Long-term mangrove forest development in Sri Lanka: early predictions evaluated against outcomes using VHR remote sensing and VHR ground-truth data. *Mar. Ecol. Prog. Ser.* 443, 51e63
- Mitra A. 2013. *Sensitivity of Mangrove Ecosystem to Changing Climate*, Springer.
- Amjad A,S, Kasawani I, Kamaruzaman J., 2007 Degradation of Indus Delta Mangroves in Pakistan. *Int J Geolo* 3:27–34
- Friess DA (2016) Ecosystem services and disservices of mangrove forests: insights from historical colonial observations. *Forests* 7:183– 199.
- Barbier EB (2016) The protective service of mangrove ecosystems: a review of valuation methods. *Mar Pollut Bull* 109:676–681.

- Ke L, Zhang C, Wong YS, Tam Nfy (2011) Dose and accumulative effects of spent lubricating oil on four common mangrove plants in South China. *Ecotoxicol Environ Saf* 7:55–66.
- Li F, Zen X, Yang J, Zhou K, Zan Q, Lei A, Tam Nfy (2014) Contamination of polycyclic aromatic hydrocarbons (PAHs) in surface sediments and plants of mangrove swamps in Shenzhen, China. *Mar Pollut Bull* 85:590–596
- Ye Y, Tam Nfy, Lu CY, Wong YS (2005) Effects of salinity on germination, seedling growth and physiology of three salt secreting mangrove species. *Aquat Bot* 83:193–205.
- Mimura T, Kura-Hotta M, Tsujimura T, et al. Rapid increase of vacuolar volume in response to salt stress. *Planta*, 2003, 216: 397402 5
- Kura-Hotta M, Mimura M, Tsujimura T, et al. High salt treatment induced Na⁺ extrusion and low salt treatment-induced Na⁺ accumulation in suspension-cultured cells of the mangrove plant, *Bruguiera sexangula*. *Plant Cell Environ*, 2001, 24: 11051112
- Ball MC, Pidsley SM (1995) Growth responses to salinity in relation to distribution of two mangrove species, *Sonneratia alba* and *S. lanceolata*, in northern Australia. *Funct Ecol* 9:77–8
- Ball MC (1988a) Ecophysiology of mangroves. *Trees Struct Funct* 2:129–142
- Quesada V, Ponce MR, Micol JL (2000) Genetic analysis of salt-tolerant mutants in *Arabidopsis thaliana*. *Genetics* 154:421–436
- Shi H, Ishitani M, Kim C, Zhu JK (2000) The *Arabidopsis thaliana* salt tolerance gene *SOS1* encodes a putative Na⁺/H⁺ antiporter. *Proc Natl Acad Sci USA* 97:6896–6901 62.
- Liu J, Ishitani M, Halfter U, Kim CS, Zhu JK (2000) The *Arabidopsis thaliana* *SOS2* gene encodes a protein kinase that is required for salt tolerance. *Proc Natl Acad Sci USA* 97:3730–3734
- Elphick CH, Sanders D, Maathuis FJM (2001) Critical role of divalent cations and Na⁺ efflux in *Arabidopsis thaliana* salt tolerance. *Plant Cell Environ* 24:733–740
- Agarie S, Shimoda T, Shimizu Y, Baumann K, Sunagawa H, Kondo A, Ueno O, Nakahara T, Nose A, Cushman JC (2007) Salt tolerance, salt accumulation, and ionic homeostasis in an epidermal bladder-cell-less mutant of the common plant *Mesembryanthemum crystallinum*. *J Exp Bot* 58:1957–1967
- Downton WJS (1982) Growth and osmotic relations of the mangrove, *Avicennia marina*, as influenced by salinity. *Aust J Plant Physiol* 9:519–528 56.
- Clough BF (1984) Growth and salt balance of the mangroves, *Avicennia marina* (Forsk.) Vierh. and *Rhizophora stylosa* Griff. in relation to salinity. *Aust J Plant Physiol* 11:419–430
- Krauss, K.W., Lovelock, C.E., McKee, K.L., López Hoffman, L., Ewe, S.M.L., and Sousa, W.P. 2008 Environmental drivers in mangrove establishment and early development: A review. *Aquatic Botany* 89: pp. 105–127.
- Alongi, D. (2002). Present state and future of the world's mangrove forests. *Environmental Conservation*, 29(3), 33149. doi:10.1017/S0376892902000231

- Daniel M. Alongi, Mangrove forests: Resilience, protection from tsunamis, and responses to global climate change, *Estuarine, Coastal and Shelf Science*, Volume 76, Issue 1, 2008, Pages 1-13, ISSN 0272-7714,
- Naidoo, G. 1987. Effects of salinity and nitrogen on growth and plant water relations in the mangrove *Avicennia marina* (Forssk.) Vierh. *New Phytol.* 107:317–326
- Ball MC (1988a) *Ecophysiology of mangroves. Trees Struct Funct* 2:129– 142
- Flowers, T.J.; Colmer, T.D. (2015). "Plant salt tolerance: adaptations in halophytes". *Annals of Botany.* 115 (3): 327–331. doi:10.1093/aob/mcu267. PMC 4332615. PMID 25844430.
- Zimmer, Katarina (22 July 2021). "Many mangrove restorations fail. Is there a better way?". *Knowable Magazine*. doi:10.1146/knowable-072221-1. Retrieved 11 August 2021.
- Dahdouh-Guebas, F., Jayatissa, L. P., Di Nitto, D., Bosire, J. O., Seen, D. L., & Koedam, N. 2005. How effective were mangroves as a defence against the recent tsunami?. *Current biology*, 15(12), R443-R447
- Lewis, R. R., & Marshall, S. M. (1998). A review of the regeneration status of mangrove forests
- Spalding MD, Kainuma M, Collins L. 2010. *World atlas of mangroves*. London, Earthscan
- Quarto, A. (2005). *Mangroves and the Filipino people: Upholding cultural and socio-economic significance*. Occasional Paper of the UNESCO Man and the Biosphere Programme, No. 21.
- Burchett, M.D., Clarke, C.J., Field, C.D. and Pulkownik, A. 1989. Growth and respiration in two mangrove species at a range of salinities. *Physiol. Plant* 75: 299–303
- Ball MC (1988) *Ecophysiology of mangroves. Trees* 2:129–142 Barbier EB (2016) The protective service of mangrove ecosystems: a review of valuation methods. *Mar Pollut Bull* 109:676–681
- Takemura T, Hanagata N, Sugihara K, Baba S, Karube I, Dubinsky Z (2000) Physiological and biochemical responses to salt stress in the mangrove, *Bruguiera gymnorhiza*. *Aquat Bot* 68:15–28
- Parida AK, Jha B (2010) Salt tolerance mechanisms in mangroves: a review. *Trees* 24:199–217
- Khan MA, Aziz I (2001) Salinity tolerance in some mangrove species from Pakistan. *Wetl Ecol Manag* 9:219–223
- Sobrado MA, Ewe SML (2006) Linking hypersalinity to leaf physiology in *Avicennia germinans* and *Laguncularia racemosa* coexisting in a scrub mangrove forest at the Indian River Lagoon Florida. *Trees* 20:679–687
- Qureshi, M. T., 1993. Rehabilitation and management of mangrove forests of Pakistan. In *Towards the rational use of high salinity tolerant plants* (pp. 89- 95). Springer Netherlands.
- IUCN., 1988 Proposal on Management Plan for Korangi/Phitti Creek. Karachi, Pakistan

- Khan, M.A., Ungar, I.A. and Showalter, A.M. 2000a. Growth, water, and ion relationships of a leaf succulent perennial halophyte, *Suaeda fruticosa* (L.) Forssk. *J. Arid Env.* 45: 73–84
- Naidoo, G. 1987. Effects of salinity and nitrogen on growth and plant water relations in the mangrove *Avicennia marina* (Forssk.) Vierh. *New Phytol.* 107:317–326
- Ball MC, Pidsley SM (1995) Growth responses to salinity in relation to distribution of two mangrove species, *Sonneratia alba* and *S. lanceolata*, in northern Australia. *Funct Ecol* 9:77–85



SEKOLAH PASCASARJANA