

List of Publications:

(a) Research Papers, Published Thesis and Invited Chapters:

- Schleser, G.H. and **Jayasekera, R.** (1985). $\delta^{13}\text{C}$ - variations of leaves in forests as an indication of reassimilated CO_2 from the soil. *Oecologia* (Berlin), 65: 536-542.
- Jayasekera, R.** (1987). Growth characteristics and uptake of minerals of the two mangrove species, *Rhizophora mangle* L. and *Rhizophora mucronata* Lamk. under different environmental conditions. Ph.D. thesis published by the "Naturforschendengesellschaft zu Emden" von 1814, Faculty of Biology/Chemistry, University of Osnabrueck, West Germany. (ISBN-3-8141-00021).
- Markert, B. and **Jayasekera, R.** (1987). Elemental composition of different plant species. *Journal of Plant Nutrition*, 10 (7): 783-794.
- Jayasekera, R.** and Schleser, G.H. (1988). Seasonal changes in potential net photosynthesis of sun and shade leaves of *Fagus sylvatica* L.. *Journal of Plant Physiology*, 133: 216-221.
- Jayasekera, R.** and Markert, B. (1989). Multi-laboratory chemical characterization of ecological samples. *Fresenius Journal of Analytical Chemistry*, 334: 226-230.
- Jayasekera, R.** and Schleser, G.H. (1991). Seasonal changes in organic carbon content of leaves of deciduous trees. *Journal of Plant Physiology*, 138: 507-510.
- Jayasekera, R.** (1991). Chemical composition of the mangrove, *Rhizophora mangle* L.. *Journal of Plant Physiology*, 138: 119-121.
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- Jayasekera, R.** and Lieth, H. (1993). Interelement correlations in the mangrove, *Rhizophora mangle* L. In: *Towards the Rational Use of High Salinity Tolerant Plants, Vol. 1: Deliberations About High Salinity Tolerant Plants and Ecosystems* (eds. Lieth, H. and Massoum, A. Al.). Kluwer Academic Publishers, Dordrecht, pp. 245-249.
- Jayasekera, R.** and Lieth, H. (1993). Effect of available rooting volume on seedling growth. In: *Towards the Rational Use of High Salinity Tolerant Plants, Vol. 1: Deliberations About High Salinity Tolerant Plants and Ecosystems* (eds. Lieth, H. and Massoum, A. Al.). Kluwer Academic Publishers, Dordrecht, pp. 225-230.
- Jayasekera, R.** and Lieth, H. (1993). Soil aeration as an ecological factor governing mangrove zonation. In: *Towards the Rational Use of High Salinity Tolerant Plants, Vol. 1: Deliberations About High Salinity Tolerant Plants and Ecosystems* (eds. Lieth, H. and Massoum, A. Al.). Kluwer Academic Publishers, Dordrecht, pp. 231-236.
- Jayasekera, R.** (1993). Interelement relationships in leaves of tropical montane trees. *Vegetatio*, 109 (2): 145-151.

- Jayasekera, R.** (1993). Concentrations of selected heavy metals in different compartments of a mountain rain forest ecosystem in Sri Lanka. In: Markert, B. (ed.), *Plants as Biomonitors: Indicators for Heavy Metals in the Terrestrial Environment*. VCH Publisher, Inc., Weinheim, New York, pp. 613-622.
- Jayasekera, R.** and Rossbach, M. (1993). Implementation of specimen banking concepts in developing countries: First trial - Sri Lanka. *The Science of the Total Environment*, 139/140: 139-142.
- Jayasekera, R.** (1994). Sampling of tropical terrestrial plants with particular reference to the determination of trace elements. In: Markert, B. (ed.), *Environmental Sampling for Trace Analysis*. VCH Publisher, Weinheim, New York, pp. 443-447.
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- Jayasekera, R.** and Rossbach, M. (1996). Use of seaweeds for monitoring trace elements in coastal waters. *Environmental Geochemistry and Health*, 18: 63-68.
- Jayasekera, R.** and Rossbach, M. (1996). Background levels of heavy metals in plants of different taxonomic groups from a montane rain forest in Sri Lanka. *Environmental Geochemistry and Health*, 18: 55-62.
- Rossbach, M. and **Jayasekera, R.** (1996). Air pollution monitoring at the Environmental Specimen Bank of Germany: spruce and pine shoots as bioindicators. *Fresenius Journal of Analytical Chemistry*, 354: 511-514.
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- Jayasekera, R.**; Freitas, M. C. and Araújo, M. F. (2004). Bulk and trace element analysis of spices. The applicability of k_0 -standardization and energy dispersive X-ray fluorescence. *Journal of Trace Elements in Medicine and Biology*, 17(4): 221-228.

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- Karunasinghe, T.G.; Fernando, W. C. and **Jayasekera, L. R.** (2009). Effect of poultry manure and inorganic fertilizer on the arbuscular mycorrhiza in coconut. *Journal of National Science Foundation*, 37(4): 285-287.
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- Jayasundara, J.M.N.P., **Jayasekera, R.** and Ratnayake, R.M.C.S. (2016). Liquid organic fertilizers for growth enhancement of *Abelmoschus esculentus* (L.) Moench and *Alternanthera sessilis* (L.) Dc.. *Tropical Plant Research*, 3(2): 334-340.
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- Fonseka, W.A.S.I, Adikari, S., **Jayasekera, L.R.**, Ranasinghe, P. and Premakumara, G.A.S. (2017). Seed germination inhibitory effect of *Caryota urens* L. seed pericarp on rice and associated weeds. *Tropical Plant Research*, 4(1): 01–06; DOI: 10.22271/tpr.2017.v4.i1.001
- Hewavitharana, N., Kannangara, S.D.P., **Jayasekera, L.R.** and Dissanayake, D.M.P.S. (2018). Formulation of an organic potting medium enriched with *Trichoderma* spp. and their effect on growth and disease suppression of *Solanum melongena* L, *International Journal of Agricultural and Environment Research*, 4(4): 254 – 258.
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- Jayarathna, N.; Athapattu, R.; Senanayake, S.P.; **Jayasekera, R.**; Rajapakse, S. and Paranagama, P. (2019). Bioactivity and volatile chemical constituents in selected *Piper* species in Sri Lanka. *BMC Complementary and Alternative Medicine* (Accepted for publication).
- Ranasinghe, R. H. A. A., **Jayasekera, L. R.**, Kannangara, S. D. P. and Rathnayake, R. M. C. S., (2019). Suitability of selected Sri Lankan weeds to formulate organic liquid fertilizers for the growth of *Bassella alba*, *Journal of Experimental Agriculture* (Submitted)

(b) Papers Presented at Conferences/Symposia/Workshops/Seminars:

- Jayasekera, L.R.** and de Silva, M.P. (1980). Patterns of establishment of two common paddy weeds, *Cyperus iria* and *Lindernia cordifolia*. *Proceedings of the 36th Annual Session of the Sri Lanka Association for the Advancement of Science (SLAAS)*, Colombo, Sri Lanka. Abstracts, p. 56.

- Schleser, G.H. and **Jayasekera, R.** (1984). The relevance of $\delta^{13}\text{C}$ -variations in tree leaves for assessing the contribution of soil-respired CO_2 to the total assimilation of leaves. Paper presented at the 8th International Biophysics Congress in Bristol/United Kingdom, August 1984.
- Lieth, H.; **Jayasekera, R.** and Markert, B. (1989). The application of element concentration cadasters to different ecological and ecophysiological problems. In: *Proceedings of the third Italo-Hungarian Symposium on Spectrochemistry, Commission of the European Communities Joint Research Centre, Ispra 8-12 June 1987* (eds. S. Caroli,; G. Rossi,; E. Sabbioni and K. Zimmer), pp. 71-86.
- Jayasekera, R.** and Rossbach, M. (1993). Reference materials of tropical origin - Needs and Prospects. Paper presented at the 5th International Symposium on Biological and Environmental Reference Materials (BERM 5) held in Aachen, Germany from May 11-14, 1992. Proceedings in *Fresenius Journal of Analytical Chemistry*, 345: p. 109.
- Rossbach, M. and **Jayasekera, R.** (1994). Umweltprobenbank des Bundes: Schwermetallkonzentrationen in Algen aus der Deutschen Bucht und dem Indischen Ozean. Paper presented at the *Analytica-94*, International conference, 19-22 April 1994. Abstract published in book of abstracts, p. 247.
- Jayasekera, R.**; Ostapczok, P. and Rossbach, M. (1994). Levels of heavy metals in evolutionarily primitive and in higher plants from a montane rain forest in Sri Lanka. Paper presented at the international conference on "*Environmental Chemistry and Geochemistry in the Tropics*", Sept.12-15, 1994, Kingston, Jamaica. In Book of Abstracts, p. 43.
- Rossbach, M. and **Jayasekera, R.** (1995). Air pollution monitoring within the Environmental Specimen Bank of Germany: Spruce shoots as a bioindicator. *Sixth International H.- W. Nuernberg Memorial Symposium - Metal Compounds in Environment and Life*. Forschungszentrum Jülich, Germany, May 9-12, (1995). In: Book of abstracts, p. 41.
- Rathnayake, R.M.W.; Solangarachchi, S.M. and **Jayasekera, L. R.** (1996). Morphological diversity of overstorey vegetation of Hakgala Strict Nature Reserve at two elevations. *Proceedings of the 52nd Annual Session of the Sri Lanka Association for the Advancement of Science: Part I- Abstracts*, Colombo, Sri Lanka. P. 118.
- Rathnayake, R.M.W.; Solangarachchi, S.M. and **Jayasekera, L.R.** (1996). Quantitative analysis of understorey vegetation of Hakgala Strict Nature Reserve at two elevations. *Proceedings of the 52nd Annual Session of the Sri Lanka Association for the Advancement of Science: Part I- Abstracts*, Colombo, Sri Lanka, P. 119.
- Rathnayake, R. M. C. S.; Gunatilleke, I. A. U. N.; Gunatilleke, C. V. S. and **Jayasekera, L. R.** (1997). Floristic diversity of four woodland types in the upper Hantana Campus land. In: *Proceedings of the 53rd Annual Session of the Sri Lanka Association for the Advancement of Science: Part I – Abstracts*, Colombo, Sri Lanka, p. 197.
- Rathnayake, R. M. W. and **Jayasekera, L.R.** (1997). A preliminary study on water relations of the pigmy forest vegetation in the Hakgala strict nature reserve. In: *Proceedings of the 17th Annual Sessions of the Institute of Biology*, Sri Lanka, p. 18.
- Rossbach, M.; **Jayasekera, R.**; Emons, H.; Jakob, J. and Grimmer, G. (1997). Environmental Specimen Bank of Germany: Spruce and pine shoots as bioindicators for terrestrial ecosystems. Paper presented at the International Workshop on *Biomonitoring of Atmospheric Pollution*, Lisboa/Portugal, September 21-24, 1997. Abstract published in Book of Abstracts, p. 6.5.
- Jayasekera, R.** and Rossbach, M. (1997). Monitoring of atmospheric levels of chemical elements using the lichen *Usnea* spp. Paper presented at the International Workshop on *Biomonitoring of Atmospheric Pollution*, Lisboa/Portugal, September 21-24, 1997. Abstract published in Book of Abstracts, p. 2.4.

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- Fernando, S.; Dalugama, J.; **Jayasekera, R.**; Dassanayake, G.; Patu, V.; Minato, A. and Ozawa, S. (2007). Development of a Job Control System to Optimize Web Traffics. *Proceedings of the 8th International Conference on Information Technology-Based Higher Education and Training*. 10th -13th July 2007, Kumamoto, Japan.
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- Jayarathna, S.P.N.C., Senanayake, S.P. and **Jayasekera, L.R.** (2015). Qualitative phytochemical analysis and phenetic variation of *Piper* species in Sri Lanka. International Postgraduate Research Conference, University of Kelaniya, 10th – 11th December 2015, p. 220.
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- Hewavitharana, N., Kannangara, S. D. P., **Jayasekera, L. R.** and Senanayake, S.P. (2016). Evaluation of nutrient and fiber content of selected invasive plants in Sri Lanka with a potential for preparing compost. Abstract published by the International Research Symposium on Pure and Applied Sciences, Faculty of Science, University of Kelaniya, Sri Lanka, p. 19.
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- Sathischandra, M. K. D. P. M., Ranasinghe, R. H. A. A. and **Jayasekera, L. R.**, (2017). Utilization of protease activity of *Carica papaya* for the hydrolysis of fish waste. International Research Symposium on Pure and Applied Sciences, Faculty of Science, University of Kelaniya, p. 09.
- Hewavitharana, N., Kannangara, S.D.P., **Jayasekera, L.R.** and Senanayake, S.P. (2018). Formulation of an organic potting medium incorporated with *Trichoderma* spp. to enhance growth and disease suppression of *Abelmoschus esculentus*, Sixth International Conference on Plants and Environmental Pollution (ICPEP-6) at CSIR-NBRI, Lucknow, India, 2018, p. 82.

(c) Text Books

- Jayasekera, L.R.**, 1997. Plant Nutrition. Lake House Investments and Publishers Ltd., Colombo, Sri Lanka. (ISBN 955-552-112-3)