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*Present Position:* Professor, Earth System Science Programme  
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*Education:* 1985-88 PhD (Wetland Ecology) The University of Hong Kong  
1982-85 MPhil (Zoology) The University of Hong Kong  
1979-82 BSc (Hons) The University of Hong Kong

*Employment:* *Griffith University, Australia*  
2017 – Adjunct Professor  
2006 – 2017 Professor  
2006 – 2014 Deputy Director, Australian Rivers Institute  
2002 – 2006 Associate Professor  
2003 – 2006 Director, Centre for Aquatic Processes and Pollution  
1998 – 2002 Senior Lecturer  
1997 – 1998 Lecturer  
*The University of Hong Kong*  
1994 – 1997 Associate Professor, Department of Ecology and Biodiversity  
1989 – 1994 Lecturer, Department of Zoology  
*School of Ocean Sciences, University of Wales, Bangor, UK*  
1989 Croucher Foundation Postdoctoral Fellow

*Professional* Inaugural John Swire Scholarship in Wetland Ecology (WWFHK-HKU) 1985-88  
Croucher Foundation Postdoctoral Fellowship 1989-90  
USA International Visitorship 1991  
Visiting Scientist, University of Georgia Marine Institute, Sapelo Island 1992-2003  
Chartered Fellow, Royal Society of Biology  
Chartered Environmentalist, Society of Environment  
Panel of Reviewers/reviewer, BBSRC and NERC (UK); RGC and ECF (HK); ARC  
(Australia); Qatar National Research Fund; WOTRO, Netherlands Organisation  
for Scientific Research, KNAW (The Netherlands); Flanders (Belgium); IFS  
(Sweden); French National Research Agency; NSFC; NOAA; NRF (S Africa)  
Editorial Board, *Ocean Science Journal*, Springer 2016 –  
Academic Editor, *PLoS One*, 2015 –  
Review Editor, *Frontiers in Forest and Global Change*, 2018 –  
Co-Chair, Mangrove Specialist Group, IUCN 2013-6; Chair, 2017 –

**Publications (2011 - )**

(Google Scholar: Total # of citations > 8,000; h-index = 47; i10-index = 111;  
<https://scholar.google.com/citations?user=iHFd3V0AAAAJ&hl=en>)

**Books**

Rivera-Monroy, V., Lee S.Y., Kristensen, E., Twilley, R. (eds) 2107. *Mangrove Ecosystems: A Global Biogeographic Perspective - Structure, Function and Services*. ISBN 9783319622040

(Springer USA. Eleven chapters, 449 pages)

Lee S.Y. 2012. (member of editorial board) *The Living Species in China's Seas. Volumes 1 & 2*. China

Ocean Press. ISBN 9787502782320

**Lee S.Y.** 2012. (member of editorial board) *An Illustrated Guide to Species in China's Seas, Volumes 1 - 8*. Ocean Press, China.

### Special issue of international journal

Friess, D., **Lee, S.Y.**, Primavera, J.H., (ed.) 2016. Turning the Tide on Mangrove Loss. *Marine Pollution Bulletin*. Volume 109, issue 2, pp.673-782. Elsevier.

### Book chapters

- Primavera J.H., Friess, D.A., Van Lavieren, H., **Lee S.Y.** 2018. Chapter 1. The mangrove Ecosystem. Pp.1-34 In Sheppard C. (ed) *World Seas: an Environmental Evaluation*. Second edition. Volume 3: Ecological Issues and Environmental Impacts. Academic Press. ISBN 9780128050521
- Rivera-Monroy, V., **Lee S.Y.**, Kristensen, E., Twilley, R.R. 2017. Chapter 1 Introduction. Pp. 1-16. In Rivera-Monroy, V., **Lee S.Y.**, Kristensen, E., Twilley, R.R. (eds) *Mangrove Ecosystem Structure and Function: a biogeographic perspective*. Springer, New York. ISBN 9783319622040
- Lee S.Y.**, Rivera-Monroy, V., Kristensen, E., Twilley, R.R. 2017. Epilogue. Pp. 383-386. In Rivera-Monroy, V., **Lee S.Y.**, Kristensen, E., Twilley, R.R. (eds) *Mangrove Ecosystem Structure and Function: a biogeographic perspective*. Springer, New York. ISBN 9783319622040
- Lee S.Y.**, Jones, G., Diele, K., Nordhaus, I., 2017. Biodiversity. Pp. 55-86. In Rivera-Monroy, V., **Lee S.Y.**, Kristensen, E., Twilley, R.R. (eds) *Mangrove Ecosystem Structure and Function: a biogeographic perspective*. Springer, New York. ISBN 9783319622040
- Primavera, J.H., **Lee S.Y.** 2015. The Magical Mangroves of KII. Pp.322-330 In: Hegan, A. (Ed.). (2015). *No More Endings: Saving Species One Story at a Time*. Melbourne, Florida: Motivational Press.
- Lee S.Y.** 2015. Chapter 9, Ecology of Brachyura. Pp.469-543. In Castro, P., Davie, P., Guinot, D., Schram, F., J.C. von Vaupel Klein (Eds) *Treatise in Zoology. The Crustacea*. Brill, Leiden, the Netherlands. ISBN 9789004188730
- Hutchison, J., Philipp, D.P., Claussen, J.E., Aburto-Oropeza, O., Carrasquilla-Henao, M., Castellanos-Galindo, G.A., Costa, M.T., Daneshgar, P.D., Hartmann, H.J., Juanes, F., Khan, M.E., Knowles, L., Knudsen, E., **Lee S.Y.**, Murchie, K.J., Tiedemann, J., zu Ermgassen, P., Spalding, M. 2015. Building an expert judgment-based model of mangrove fisheries. Pp. 17-42 In: *Mangrove as Fish Habitat*. (eds) Murchie, K.J., Daneshgar, P.P. American Fisheries Society. ISBN-13: 9781934874424

### Refereed journal papers

- Pitt K.A., **Lee S.Y.**, Connolly R.M., Bui, THH, Dorian N. 2018. Sources and fates of organic matter in constructed versus natural coastal waterways. *Marine Pollution Bulletin* 135:505-513
- Adame, M.F., Rozainah M.Z., Fry B., Chong V.C., Then Y.H.A., Brown C.J., **Lee S.Y.** 2018. Loss and recovery of carbon and nitrogen after mangrove clearing. *Ocean and Coastal Management* 161:117-126
- Natin P., **Lee S.Y.** 2018. Estuarine caridean shrimp (*Palaemon debilis* Dana, 1852) (Decapoda: Caridea) can differentiate olfactory cues from different mangrove species for microhabitat selection. *Journal of Experimental Marine Biology and Ecology* 501:99-108
- Henderson C.J., Stevens T.F., Gilby B., **Lee S.Y.** 2018. Spatial conservation of large mobile elasmobranchs requires an understanding of spatio-temporal seascape utilisation. *ICES Journal of Marine Science* 75: 553-561.
- Ouyang, X., **Lee S.Y.**, Connolly, R.M. 2018. Partitioning of sources of CO<sub>2</sub> efflux in establishing mangrove ecosystems using experimental isotope labelling of seedlings. *Limnology and Oceanography* 63: 731-340. DOI: 10.1002/lno.10663
- Ouyang, X., **Lee S.Y.**, Connolly, R.M., Kainz, M. 2018. Spatially explicit valuation of wetlands for cyclone mitigation in Australia and China. *Scientific Reports* 8:3035. DOI:10.1038/s41598-018-21217-z, 9pp.
- Peng, Y.S., Zhang, M., **Lee S.Y.** 2017. Food availability and reduced predation risk drive the distributional patterns of two pulmonate gastropods in a mangrove-saltmarsh transitional habitat. *Marine Environmental Research* 130:21-29
- Henderson, C.J., Gilby, B., **Lee S.Y.**, Stevens, T.F. 2017. Contrasting effects of habitat complexity and connectivity on biodiversity in seagrass meadows. *Marine Biology* 164:117 DOI 10.1007/s00227-017-

- Kamal, S., Warnken, J., Bakhtiyari, M., **Lee S.Y.\*** 2017. Sediment distribution in shallow estuaries at fine scale: in situ evidence of 3D structural complexity effects by mangrove pneumatophores. *Hydrobiologia* 803:121-132. DOI: 10.1007/s10750-017-3178-3
- Kristensen, E., **Lee S.Y.**, Mangion, P., Quintana, C.O., Valdemarsen, T. 2017. Trophic fractionation of stable isotopes and food source partitioning by leaf-eating crabs in mangrove environments. *Limnology and Oceanography* 62:2097-2112. DOI: 10.1002/lno.10553
- Henderson, C.J., Olds, A., **Lee S.Y.**, Gilby, B.L., Maxwell, P.S., Connolly, R.M. and Stevens, T.F. 2017. Marine reserves and seascape context shape fish assemblages in seagrass. *Marine Ecology Progress Series* 566:135-144.
- Ouyang, X., **Lee S.Y.**, Connolly, R.M. 2017. Global patterns of root decomposition rates and the fate of root carbon production in mangroves and saltmarsh. *Earth Sciences Reviews* 166:53-63.
- Lee S.Y.\***, Khim, J.-S. 2017. Hard science is essential to restoring soft-sediment intertidal habitats in East Asia. *Chemosphere* 168:765-776
- Abudullah, M.M., **Lee S.Y.** 2017. Structure of mangrove meiofaunal assemblages driven by local sediment conditions in subtropical southeast Australia. *Estuarine Coastal and Shelf Science* <http://dx.doi.org/10.1016/j.ecss.2016.10.039>
- Spencer D.M., Brown I.W., **Lee S.Y.**, Lemckert C.J. 2017. Physical oceanographic processes affecting spanner crab (*Ranina ranina*) catchability – a review. *Fisheries Research* 186:248-257.
- Ouyang, X., **Lee S.Y.**, Connolly, R.M. 2017. Structural equation modelling unravels factors regulating sediment carbon stock and CO<sub>2</sub> flux in a subtropical mangrove. *Science of the Total Environment* 578:513-522
- Kwon, B.-O., Lee Y., Park, J., Ryu, J., Hong, J., Son, H., **Lee S.Y.**, Nam, J., Koh, C-H., Khim, J.S. 2016. Temporal dynamics and spatial heterogeneity of microalgal biomass in the intertidal flats of the Saemangeum area, Korea. *J Sea Research* 116:1-11.
- Werry, J.M., Sumpton, W., Otway, N., **Lee S.Y.\***, Mayer, D. 2016. Rainfall: a key driver for movement of bull shark, *Carcharhinus leucas*, into beach areas. *Global Ecology and Conservation*. (In revision)
- Friess, D., **Lee S.Y.**, Primavera, J.H. 2016. Turning the tide on mangrove loss. *Marine Pollution Bulletin* 109:673-675.
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- Peng, Y., Zheng, M., Zheng Z., Wu, G., Chen, Y., Xu, H., Tian, G., Peng, S., Chen, G., **Lee S.Y.** 2016. Virtual increase or latent loss? A reassessment of mangrove populations and their conservation in Guangdong, southern China. *Marine Pollution Bulletin* 109:691-699.
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- Peng Y., Diao J., Zheng M., Guan D., Zhang R., Chen G., **Lee S.Y.** 2016. Early growth adaptability of four mangrove species under the canopy of an introduced mangrove plantation: implications for restoration. *Forest Ecology and Management* 373:179-188
- Van de Merwe, J.P., **Lee S.Y.**, Connolly, R.M., Pitt, K., Steven, A. 2016. Assessing temporal and spatial trends in estuarine nutrient dynamics using a multi-species stable isotope approach. *Ecological Indicators* 67:338-345
- M.M. Abdullah, **Lee S.Y.** 2016 Meiofauna and depositing crabs: is the interaction physical or trophic? *Journal of Experimental Marine Biology and Ecology* 479:69-75.
- Lee S.Y.\*** 2016. From blue to black: anthropogenic forcing of carbon and nitrogen influx in mangrove-lined estuaries in the South China Sea. *Marine Pollution Bulletin* 109:682-690.
- Alberts-Hubatsch, **Lee S.Y.**, H., Nordhaus, I., Diele, K., Meynecke, J.-O., Wolff, M. 2016. Life-history, movement and habitat use of *Scylla serrata* – current knowledge and future challenges. *Hydrobiologia* 763:5-21. DOI 10.1007/s10750-015-2393-z.
- Bui, H.T.H., **Lee S.Y.\*** 2015. Potential contributions of gut microbiota to the nutrition of the detritivorous sesarmid crab *Parasesarma erythodactyla*. *Marine Biology* 162: 1969-1981 (DOI: 10.1007/s00227-015-2723-8)
- Morris, C., **Lee S.Y.\***, van de Merwe, J. 2015.  $\delta^{15}\text{N}$  of estuarine fishes as a quantitative indicator of

- urbanization. *Ecological Indicators* 56:41-49
- Bui, H., **Lee S.Y.** 2015. Endogenous cellulase production in the leaf litter foraging mangrove crab, *Parasesarma erythodactyla*. *Comparative Biochemistry and Physiology B*. 179:27-36
- Ouyang, X., **Lee S.Y.** 2014. Updated estimates of carbon accumulation rates in coastal marsh sediments. *Biogeosciences* 11: 5057-5071. Doi:10.5194/bg-11-5057-2014.
- Alberts-Hubatsch, **Lee S.Y.**, H., Diele, K., Mattias, W., Nordhaus, I. 2014. Microhabitat use of early benthic stage mud crabs (*Scylla serrata* Forskål, 1775) in eastern Australia. *Journal of Crustacean Biology* 34:604-610.
- Spencer, D., Lemckert, C., Yu, Y., Gustafson, J., **Lee S.Y.**, Zhang, H. 2014. Quantifying dispersion in an estuary: A Lagrangian drifter approach. *Journal of Coastal Research* SI70:29-34
- Kamal, S., **Lee S.Y.\***, Warnken, J. 2014. Investigating three-dimensional meso-scale habitat complexity and its ecological implications using low-cost RGB-D sensor technology. *Methods in Ecology and Evolution* 5:845-853.– featured on journal web page and blog+video; ‘Editor’s pick’, short-listed for the Robert May prize in Ecology).
- Lee S.Y.\***, Primavera J.H., Dahdouh-Geubas F., McKee, K., Bosire J.O., Cannicci, S., Diele, K., Koedam, N., Marchand C., Mendelssohn, I., Mukherjee, N., Record, S. 2014. Ecological role and services of tropical mangrove ecosystems: a reassessment. *Global Ecology and Biogeography* 23:726-743.
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- Clua, E., Chauvet, C., Read, T., Werry, J., **Lee S.Y.** 2013. Behavioural patterns of a Tiger Shark (*Galeocerdo cuvier*) feeding aggregation on a whale carcass in Prony bay, New Caledonia. *Marine & Freshwater Behaviour and Physiology* 46:1-20.
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- Meynecke, J.O., Grubert, M., Arthur, J.M., Boston, R. **Lee S.Y.** 2012. The influence of the La Niña-El Niño cycle on giant mud crab (*Scylla serrata*) catches in northern Australia. *Estuarine, Coastal and Shelf Science* 100:93-101
- Werry, J.M., **Lee S.Y.**, Otway, N., Hu, Y., Sumpton, W. 2011. A multi-faceted approach for quantifying the estuarine-nearshore transition in the life cycle of the bull shark, *Carcharhinus leucas*. *Marine and Freshwater Research* 62: 1421-1431.
- Noriega, R., Werry, J.M., Sumpton, W., Mayer, D., **Lee S.Y.** 2011. Trends in annual CPUE and evidence of sex and size segregation of *Sphyrna lewini*: management implications in coastal waters of northeastern Australia. *Fisheries Research* 110: 472-477.
- Meynecke, J.-O., **Lee S.Y.** 2011. Climate-coastal fisheries relationships and their spatial variation in Queensland, Australia. *Fisheries Research* 110: 365-376.
- Lee, K.M., **Lee S.Y.**, Connolly, R.M. 2011. Short-term response of estuarine sandflat trophodynamics to pulse anthropogenic physical disturbance – support for the Intermediate Disturbance Hypothesis. *Estuarine, Coastal and Shelf Science* 92:639-648.
- Lee, K.M., **Lee S.Y.**, Connolly, R.M. 2011. Combining stable isotope enrichment, compartmental modelling and ecological network analysis for quantitative measurement of food web dynamics. *Methods in Ecology and Evolution* 2: 56-65.

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