

Richard M. K. Saunders • Curriculum vitae



Professor Richard M. K. Saunders
School of Biological Sciences
The University of Hong Kong
Pokfulam Road
Hong Kong
China

Tel.: (852) 2299 0608
Fax: (852) 2517 6082
Email: saunders@hku.hk
URLs: <http://orcid.org/0000-0002-8104-7761>
<http://www.researcherid.com/rid/A-7436-2008>
https://www.researchgate.net/profile/Richard_Saunders/

Research focus

Evolutionary biology focuses on the processes that drive evolution and the resultant patterns reflected in the tree of life. I apply both approaches in my research, studying rainforest tree diversity using DNA sequence variation as a foundation for reconstructing the sequence of past evolutionary events. These evolutionary trees form a conceptual framework for integrating studies of the genetic control and ecological function of traits, the pattern and tempo of speciation, and changes in geographical distribution.

Qualifications

- 1987–90 **PhD**, CNAU (University of Portsmouth, UK)
1986–87 **MSc** in Pure and Applied Plant Taxonomy, University of Reading, UK
1982–86 **BSc (Hons)** in Plant Biology, University of St Andrews, UK

Professional employment

- 2010– **Professor**, University of Hong Kong
1999–2010 **Associate Professor**, University of Hong Kong
1994–99 **Assistant Professor**, University of Hong Kong
1992–94 **Lecturer**, University of Hong Kong
1991–92 **Higher Scientific Officer**, Institute of Freshwater Ecology, Wareham, Dorset, UK
1987–90 **Research Assistant**, University of Portsmouth, UK

Editorial experience

- **Editor**, *Journal of Systematics and Evolution* (since 2014)
- **Associate Editor**, *BMC Evolutionary Biology* (2010–14); *Botanical Journal of the Linnean Society* (since 2008); *Journal of Systematics and Evolution* (2009–14); *Taxon* (since 2012); and *Thai Forest Bulletin* (2008–11)
- **Editorial board member**, *Journal of Tropical and Subtropical Botany* (since 2007)

Postdoctoral fellows & postgraduates

- **9 postdocs** (1 current), **24 PhD students** (4 current), and **3 MPhil students** (1 current)

Research grants

Total competitive research funding secured: **HK\$16.4 million** (approximately £1.35 million or US\$2.12 million), of which over 75% is from external sources.

Publications

Books & monographs

- Bunker, SG [illustrations]; **RMK Saunders**, CC Pang [text] (2018) *Portraits of Trees of Hong Kong and Southern China*. Hong Kong: Earnshaw Books (289 pp).
- Chatrou, LW, JE Richardson, RHJ Erkens, **RMK Saunders**, MF Fay, eds. (2012) *The Natural History of Annonaceae*. *Bot J Linn Soc* 169: 1–279.
- Weerasooriya, AD, **RMK Saunders** (2010) Monograph of *Mitrephora* (Annonaceae). *Syst Bot Monogr* 90: 1–167.
- Govaerts, R, P Wilkin, **RMK Saunders** (2007) *World Checklist of Dioscoreales: Yams and their Allies*. London: The Board of Trustees of the Royal Botanic Gardens, Kew (xviii + 65 pp).
- Su, YCF, **RMK Saunders** (2006) Monograph of *Pseuduvaria* (Annonaceae). *Syst Bot Monogr* 79: 1–204.
- **Saunders, RMK** (2001) *Schisandraceae*. [*Species Plantarum: Flora of the World* 4]. Canberra: Australian Biological Resources Study (v + 62 pp).
- **Saunders, RMK** (2000) Monograph of *Schisandra* (Schisandraceae). *Syst Bot Monogr* 58: 1–146.
- **Saunders, RMK** (1998) Monograph of *Kadsura* (Schisandraceae). *Syst Bot Monogr* 54: 1–106.

Journal articles (selected)

- Guo, X, DC Thomas, **RMK Saunders** (2018) Gene tree discordance and coalescent methods support ancient intergeneric hybridisation between *Dasymaschalon* and *Friesodielsia* (Annonaceae). *Molec Phylog Evol* 127: 14–29.
- Guo, X, DC Thomas, **RMK Saunders** (2018) Organ homologies and floral evolution in the *Dasymaschalon* alliance (Annonaceae): inner petal loss and its functional consequences. *Front Pl Sci*. 9: art. 174.
- Thomas, DC, CC Tang, **RMK Saunders** (2017) Historical biogeography of *Goniothalamus* and Annonaceae tribe Annonaeae: dispersal-vicariance patterns in tropical Asia and intercontinental tropical disjunctions revisited. *J Biogeogr* 44: 2862–2876.
- Lau, JYY, CC Pang, L Ramsden, **RMK Saunders** (2017) Stigmatic exudate in the Annonaceae: pollinator reward, pollen germination medium, or extragynoecial compitum? *J Integr Plant Biol* 59: 881–894.
- Li, PS, DC Thomas, **RMK Saunders** (2017) Historical biogeography and ecological niche modelling of the *Asimina-Disepalum* clade (Annonaceae): role of ecological differentiation in Neotropical-Asian disjunctions and diversification in Asia. *BMC Evol Biol* 17: art. 188.

- Guo, X, CC Tang, DC Thomas, TLP Couvreur, **RMK Saunders** (2017) A mega-phylogeny of the Annonaceae: taxonomic placement of five enigmatic genera and recognition of a new tribe, Phoeniciantheae. *Sci Rep* 7: art. 7323.
- Lau, JYY, X Guo, CC Pang, CC Tang, DC Thomas, **RMK Saunders** (2017) Time-dependent trapping of pollinators driven by the alignment of floral phenology with insect circadian rhythms. *Front Pl Sci* 8: art. 1119.
- Hu, A-Q, SW Gale, P Kumar, **RMK Saunders**, M Sun, GA Fischer (2017) Preponderance of clonality triggers loss of sex in *Bulbophyllum bicolor*, an obligately outcrossing epiphytic orchid. *Molec Ecol* 26: 3358–3372.
- Guo, X, PH Hoekstra, CC Tang, DC Thomas, JJ Wieringa, LW Chatrou, **RMK Saunders** (2017) Cutting up the climbers: evidence for extensive polyphyly in *Friesodielsia* (Annonaceae) necessitates generic realignment across the tribe Uvarieae. *Taxon* 66: 3–19.
- Lau, JYY, CC Pang, L Ramsden, **RMK Saunders** (2016) Reproductive resource partitioning in two sympatric *Goniothalamus* species (Annonaceae) from Borneo: floral biology, pollinator trapping and plant breeding system. *Sci Rep* 6: art. 35674.
- Li, P-S, CC Pang, **RMK Saunders** (2016) Contrasting pollination ecology of *Disepalum* species (Annonaceae): evolutionary loss of the floral chamber and partial breakdown of protogyny associated with a shift in pollination system. *Bot J Linn Soc* 182: 708–718.
- Li, P-S, DC Thomas, **RMK Saunders** (2015) Phylogenetic reconstruction, morphological diversification and generic delimitation of *Disepalum* (Annonaceae). *PLoS One* 10: e0143481.
- Tang, CC, DC Thomas, **RMK Saunders** (2015) Molecular phylogenetics of the species-rich angiosperm genus *Goniothalamus* (Annonaceae) inferred from nine chloroplast regions: synapomorphies and putative correlated evolutionary changes in fruit and seed morphology. *Molec Phylogeny Evol* 92: 124–139.
- Pang, CC, **RMK Saunders** (2015) Floral biology and pollination ecology of *Desmos chinensis* (Annonaceae): assessing the efficacy of floral synchrony for promoting xenogamy. *Int J Pl Sci* 176: 333–345.
- Thomas, DC, LW Chatrou, GW Stull, DM Johnson, DJ Harris, U-S Thongpairaj, **RMK Saunders** (2015) The historical origins of palaeotropical intercontinental disjunctions in the pantropical plant family Annonaceae. *Perspect Pl Ecol Evol Syst* 17: 1–16.
- Pang, CC, **RMK Saunders** (2014) The evolution of alternative mechanisms that promote out-crossing in Annonaceae, a self-compatible family of early-divergent angiosperms. *Bot J Linn Soc* 174: 93–109.
- Pang, CC, T Scharaschkin, YCF Su, **RMK Saunders** (2013) Functional monoecy due to delayed anther dehiscence: a novel mechanism in *Pseuduvaria mulgraveana* (Annonaceae). *PLoS One* 8: e59951.
- Xue, B, YCF Su, DC Thomas, **RMK Saunders** (2012) Pruning the polyphyletic genus *Polyalthia* (Annonaceae) and resurrecting the genus *Monoon*. *Taxon* 61: 1021–1039.
- Thomas, DC, S Surveswaran, B Xue, G Sankowsky, JB Mols, PJA Keßler, **RMK Saunders** (2012) Molecular phylogenetics and historical biogeography of the *Meiogyne-Fitzalania* clade (Annonaceae): generic paraphyly and late Miocene-Pliocene diversification in Australasia and the Pacific. *Taxon* 61: 559–575.
- **Saunders, RMK** (2012) The diversity and evolution of pollination systems in Annonaceae. *Bot J Linn Soc* 169: 222–244.
- Chatrou, LW, MD Pirie, RHJ Erkens, TLP Couvreur, KM Neubig, JR Abbott, JB Mols, JW Maas, **RMK Saunders**, MW Chase (2012) A new subfamilial and tribal classification of the pantropical flowering plant family Annonaceae informed by molecular phylogenetics. *Bot J Linn Soc* 169: 5–40.
- Zhou, L, YCF Su, DC Thomas, **RMK Saunders** (2012) ‘Out-of-Africa’ dispersal of tropical floras during the Miocene climatic optimum: evidence from *Uvaria* (Annonaceae). *J Biogeogr* 39: 322–335.
- **Saunders, RMK**, YCF Su, B Xue (2011) Phylogenetic affinities of *Polyalthia* species (Annonaceae) with columellar-sulcate pollen: enlarging the Madagascan endemic genus *Fenerivia*. *Taxon* 60: 1407–1416.
- Xue, B, YCF Su, JB Mols, PJA Keßler, **RMK Saunders** (2011) Further fragmentation of the polyphyletic genus *Polyalthia* (Annonaceae): molecular phylogenetic support for a broader delimitation of *Marsypopetalum*. *Syst Biodiv* 9: 17–26.
- Couvreur, TLP, MD Pirie, LW Chatrou, **RMK Saunders**, YCF Su, JE Richardson, RHJ Erkens (2011) Steady tropical diversification and boreotropical geodispersal during the early history of the flowering plant family Annonaceae. *J Biogeogr* 38: 664–680.
- Surveswaran, S, RJ Wang, YCF Su, **RMK Saunders** (2010) Generic delimitation and historical biogeography in the early-divergent ‘ambavioid’ lineage of Annonaceae: *Cananga*, *Cyathocalyx* and *Drepananthus*. *Taxon* 59: 1721–1734.
- **Saunders, RMK** (2010) Floral evolution in the Annonaceae: hypotheses of homeotic mutations and functional convergence. *Biol Rev* 85: 571–591.
- Zhou, L, YCF Su, **RMK Saunders** (2009) Molecular phylogenetic support for a broader delimitation of *Uvaria* (Annonaceae), inclusive of *Anomianthus*, *Cyathostemma*, *Ellipeia*, *Ellipeiopsis* and *Rauwenhoffia*. *Syst Biodiv* 7: 249–258.
- Su, YCF, **RMK Saunders** (2009) Evolutionary divergence times in the Annonaceae: evidence of a late Miocene origin of *Pseuduvaria* in Sundaland with subsequent diversification in New Guinea. *BMC Evol Biol* 9: art. 153.
- Su, YCF, GJD Smith, **RMK Saunders** (2008) Phylogeny of the basal angiosperm genus *Pseuduvaria* (Annonaceae) inferred from five chloroplast DNA regions, with interpretation of morphological character evolution. *Molec Phylogeny Evol* 48: 188–206.

Summary publication data:

8 books; 103 journal articles; and 26 book chapters

Google citation data:

h-index = 29

*i*10-index = 60

Updated: 25 October 2018