

Dr. Kalana Maduwage

Publications: Thesis

1. Doctor of Philosophy:

2016. Investigation of coagulant effects of Sri Lankan venomous snakes and efficacy of antivenoms. University of Newcastle, Australia.

2. Master of Philosophy:

2011. Systematics, venom characteristics and clinical features following envenomation by Sri Lankan hump-nosed vipers. University of Peradeniya, Sri Lanka.

Publications: Journal Articles

Publications in referred indexed journals

1. 2017. Ratnayake I, Shihana F, Dissanayake DM, Buckley NA, **Maduwage K**, Isbister GK. Performance of the 20-minute whole blood clotting test in detecting venom induced consumption coagulopathy from Russell's viper (*Daboia russelii*) bites. *Thrombosis and Haemostasis*. Feb 2. doi: 10.1160/TH16-10-0769.
2. 2017. Isbister GK, Jayamanne S, Mohamed F, Dawson AH, **Maduwage K**, Gawarammana I, Lalloo DG, de Silva HJ, Scorgie FE, Lincz LF, Buckley NA. A randomized controlled trial of fresh frozen plasma for coagulopathy in Russell's viper (*Daboia russelii*) envenoming. *Journal of Thrombosis and Haemostasis*. Jan 20. doi: 10.1111/jth.13628. [Epub ahead of print].
3. 2016. Silva A, Johnston C, Kuruppu S, Kneisz D, **Maduwage K**, Kleifeld O, et al. Clinical and Pharmacological Investigation of Myotoxicity in Sri Lankan Russell's Viper (*Daboia russelii*) Envenoming. *PLoS Negl Trop Dis* 10(12): e0005172. doi:10.1371/journal.pntd.0005172.
4. 2016. Sudasinghe H, R. Pethiyagoda, K. Maduwage, M. Meegaskumbura. *Mystus nanus*, a new striped catfish from Sri Lanka (Teleostei: Bagridae) *Ichthyological Explorations Freshwaters*, Vol. 27, No. 2, pp. 163-172.

5. 2016. Senanayake Kularatne, Kosala Weerakoon, Anjana Silva, **Kalana Maduwage**, Chamara Walathara, Ishani Rathnayake, Senal Medagedara, Ranjith Paranagama, Suresh Mendis, P.V.R. Kumarasiri. Efficacy of intravenous hydrocortisone administered 2e4 h prior to antivenom as prophylaxis against adverse drug reactions to snake antivenom in Sri Lanka: An open labelled randomized controlled trial *Toxicon* 120: 159-165.
6. 2016. Kudagammana T, Mohotti K, **Maduwage K**, Marasinghe S. Vitamin B12 status among underprivileged preschool children: Experience from two tea estates. *Sri Lanka Journal of Child Health*, 2016; 45(2): 111-115.
7. 2016. Anjana Silva, **Kalana Maduwage**, Michael Sedgwick, Senaka Pilapitiya, Prasanna Weerawansa, Niroshana J Dahanayaka, Nicholas A. Buckley, Sisira Siribaddana, Geoffrey K. Isbister. Neurotoxicity in Russell's viper (*Daboia russelii*) envenoming in Sri Lanka: A clinical and neurophysiological study. *Clinical Toxicology* DOI: 10.3109/15563650.2016.1143556).
8. 2016. Anjana Silva, **Kalana Maduwage**, Michael Sedgwick, Senaka Pilapitiya, Prasanna Weerawansa, Niroshana Dahanayake, Nicholas A. Buckley, Sisira Siribaddana, Geoffrey K. Isbister. Common Krait (*Bungarus caeruleus*) envenoming in Sri Lanka: a clinical and neurophysiological study. *PLoS Neglected Tropical Diseases* 10(2): e0004368. doi:10.1371/journal.pntd.0004368.
9. 2016. **Kalana Maduwage**, Anjana Silva, Margaret A O'Leary, Wayne C Hodgson, Geoffrey K Isbister. Efficacy of Indian polyvalent snake antivenom against Sri Lankan snake venoms: lethality studies or clinically focussed *in vitro* studies. *Nature Scientific Reports*. 6:26778. DOI: 10:1038.serp26778.
10. 2015. **Maduwage K**, Scorgie F, Licz, et al., Procoagulant snake venoms have differential effects in animal plasmas: Implications for antivenom testing in animal models, *Thrombosis Research*, <http://dx.doi.org/10.1016/j.thromres.2015.12.002>.
11. 2015. Sudasinghe H, Pethiyagoda R. **Maduwage K**, Meegaskumbura M. *Mystus nanus*, a new striped catfish from Sri Lanka (Teleostei: Bagridae) *Ichthyological Explorations of Frshwaters*. (In press).

12. 2015. Isbister GK, **Maduwage K**, Scorgie FE, Shahmy S, Mohamed F, Abeysinghe C, et al. (2015) Venom Concentrations and Clotting Factor Levels in a Prospective Cohort of Russell's Viper Bites with Coagulopathy. *PLoS Negl Trop Dis* 9(8): e0003968. doi:10.1371/journal.pntd.0003968.
13. 2015. Isbister GK, **Maduwage K**, Saiao A, Buckley NA, Jayamanne SF, Seyed S, et al. (2015). Population Pharmacokinetics of an Indian F(ab')₂ Snake Antivenom in patients with Russell's Viper (*Daboia russelii*) Bites. *PLoS Negl Trop Dis* 9(7): 0003873. doi:10.1371/journal.pntd.0003873.
14. 2015. **Maduwage K**, Buckley NA, de Silva HJ, Lalloo DG, Isbister GK. Snake antivenom for snake venom induced consumption coagulopathy. *Cochrane Database of Systematic Reviews* 2015, Issue 6.Art.No.:CD011428.DOI: 10.1002/14651858.CD011428.pub2.
15. 2015. O' Leary MA, **Maduwage K**, Isbister GK. Detection of venom after antivenom administration is largely due to bound venom. *Toxicon*. 93: 112-115
16. 2015. Batuwita S. **Maduwage K**. Sudasinghe H. Redescription of *Pethia melanomaculata* (Teleostei: Cyprinidae) from Sri Lanka. *Zootaxa* 3936 (4): 575–583.
17. 2014. **Maduwage K**, O'Leary MA, Scorgie FE, Shahmy S, Mohamed F, et al. Detection of Venom after Antivenom Is Not Associated with Persistent Coagulopathy in a Prospective Cohort of Russell's Viper (*Daboia russelii*) Envenomings. *PLoS Neglected Tropical Diseases* 8(12): e3304. doi:10.1371/journal.pntd.0003304.
18. 2014. **Maduwage K**, Buckley NA, de Silva HJ, Lalloo DG, Isbister GK, 2014. Snake antivenom for snake venom induced consumption coagulopathy (protocol). *Cochrane Database of Systematic Reviews*, Issue 12.
19. 2014. **Maduwage K**, Isbister GK. Current Treatment for Venom-Induced Consumption Coagulopathy Resulting from Snakebite. *PLoS Neglected Tropical Diseases*. 8 (10): e3220. doi:10.1371/journal.pntd.0003220.
20. 2014. Isbister GK, **Maduwage K**, Page CB. Antivenom cross neutralisation in a suspected Asian pit viper envenoming causing severe coagulopathy. *Toxicon* 90: 286-90.

21. 2014. Pethiyagoda R, **Maduwage K**, Manamendra-Arachchi K. Validation of the South Asian cichlid genus *Pseudetroplus* Bleeker (Pisces: Cichlidae). *Ichthyological Exploration of Freshwaters* 3838 (5): 595–600.
22. 2014. **Maduwage K**, O’Leary M, Isbister GK. Diagnosis of snake envenomation using a simple Phospholipase A2 assay. *Nature Scientific Reports* 4 (4827): DOI:10.1038/srep04827 (2014).
23. 2014 Kularatne SAM, Wimalasooriya S, Nazar K, **Maduwage K**. Thrombotic microangiopathy following Russell’s viper (*Daboia russelii*) envenoming in Sri Lanka: a case report. *Ceylon Medical Journal* 59: 29-30.
24. 2014 Kularatne SAM, Silva A, Weerakoon K, **Maduwage K**, Walathara C, Paranagama R, Mendis S. Revisiting Russell’s Viper (*Daboia russelii*) Bite in Sri Lanka: Is Abdominal Pain an Early Feature of Systemic Envenoming? *PLoS One* 9(2): e90198. doi: 10.1371/journal.pone. 0090198.
25. 2014 Kularatne SAM, Silva A, **Maduwage K**, Ratnayake I, Walathara C, Ratnayake C, Mendis S, Parangama R. Victims’ Response to Snakebite and Socio-epidemiological Factors of 1018 Snakebites in a Tertiary Care Hospital in Sri Lanka. *Wilderness and Environmental Medicine* 25, 35-40.
26. 2013. Kularatne SAM, Hettiarchchi R, Dalpathadu J, Mendis ASV, Appuhamy PDSAN, Zoysa HDJ, **Maduwage K**, Weerasinghe VS, de Silva A. *Enhydrina schistosa* (Elapidae: Hydrophiinae) the most dangerous sea snake in Sri Lanka: Three case studies of severe envenoming *Toxicon* 77, 78-86.
27. 2013 Isbister KG, **K. Maduwage**, S. Shahmy, F. Mohamed, C. Abeysinghe, H. Karunathilake, CA Ariaratnam, NA Buckley. Diagnostic 20-min whole blood clotting test in Russell’s viper envenoming delays antivenom administration. *Quarterly Journal of Medicine* doi:10.1093/qjmed/hct102.
28. 2103 **Kalana Maduwage**, Fiona E. Scorgie, Seyed Shahmy, Fahim Mohamed, Chandana Abeysinghe, Harendra Karunathilake, Lisa F. Lincz, Christeine A. Gnanathan, Geoffrey K. Isbister. Factor deficiencies in Hump-nosed pit viper (*Hypnale hypnale*) envenoming. *Clinical Toxicology* 51: 527-31.

29. 2013 O’Leary M, **Maduwage K**, Isbister, GK. Use of immunoturbidimetry to detect venom-antivenom binding using snake venoms. *Journal of Pharmacology and Toxicological Methods* 67: 171-181.
30. 2013 **Kalana Maduwage**, Geoffrey K. Isbister, Anjana Silva, Sunil Bowatta, Suresh Mendis, Indika Gawarammana. Epidemiology and clinical effects of Hump-nosed pit viper (Genus: *Hypnale*) envenoming in Sri Lanka *Toxicon* 61: 11-15.
31. 2012 **Maduwage K**, Silva A. Hemipeneal Morphology of Sri Lankan Dragon Lizards (Sauria: Agamidae). *Ceylon Journal of Sciences (Bio. Sci)* 41 (2): 111-123.
32. 2012. Anjana Silva, Panduka Gunawardena, Danister Weilgama, **Kalana Maduwage**, Indika Gawarammana Comparative in-vivo toxicity of venoms from South Asian hump-nosed pit vipers (Viperidae: Crotalinae: Hypnale) *BMC Research Notes* 2012, 5:471.
33. 2012. Pethiyagoda, R., Meegaskumbura, M., **Maduwage, K.** A synopsis of the Indian and Sri Lankan fishes referred to Puntius Hamilton (Teleostei: Cyprinidae: Cyprininae). *Ichthyological Exploration of Freshwaters* 23 (1): 69–95.
34. 2011. Kularatne, K., Budagoda S., **Maduwage, K.**, Nasar, K., Kumarasiri, R., Kularatne, S. Parallels between Russell’s viper (*Daboia russelii*) and hump-nosed viper (*Hypnale* species) bites in the central hills of Sri Lanka amidst the heavy burden of unidentified snake bites. *South Asian Journal of Tropical Medicine* 2011: 564–567.
35. 2011. **Maduwage K.**, Kularatne K, Wazil A, Gawarammana I. Coagulopathy, acute kidney injury and death following *Hypnale zara* envenoming – The first case report from Sri Lanka. *Toxicon*, 58 (2011): 641–643.
36. 2011. Kularatne, S. A. M., Sivansuthan, S, Medagedara, S. C., **Maduwage, K.**, de Silva, A. Revisiting saw-scaled viper (*Echis carinatus*) bites in the Jaffna Peninsula of Sri Lanka: ecology, epidemiology and clinical manifestations. *Transactions of the Royal Society of Tropical Medicine and Hygiene*. 105 (2011): 591–597.
37. 2011 Gower, D., **Maduwage K.** Two new species of *Rhinophis* Hemprich (Serpentes: Uropeltidae) from Sri Lanka. *Zootaxa*. 2881: 51–68.

38. 2011 **Maduwage, K.**, Hodgson, W. C, Konstantakopoulos, N., O’Leary, M. A., Gawarammana I., Isbister, G. K. The in vitro toxicity of venoms from South Asian Hump-nosed pit vipers (Viperidae: *Hypnale*). *Journal of Venom Reseach* 2: 17–23.
39. 2010 Silva, A, **K. Maduwage** & R. Pethiyagoda. A review of the genus *Rasbora* in Sri Lanka, with description of two new species (Teleostei: Cyprinidae). *Ichthyological Exploration of Freshwaters* 21: 27–50.
40. 2009 **Maduwage, K.**, A. Silva, K. Manamendra-Arachchi & R. Pethiyagoda. A taxonomic revision of the South Asian hump-nosed vipers (Squamata: Viperidae: Crotalinae: *Hypnale*). *Zootaxa* 2232: 1–28.
41. 2008 Silva, A., **K. Maduwage** & R. Pethiyagoda. *Puntius kamalika*, a new species of barb from Sri Lanka (Teleostei: Cyprinidae). *Zootaxa* 1824: 55–64.
42. 2008 Pethiyagoda, R., M. Kottelat, A. Silva, **K. Maduwage** & M. Meegaskumbura. A review of the genus *Laubuca* in Sri Lanka, with description of three new species (Teleostei: Cyprinidae). *Ichthyological Exploration of Freshwaters* 19: 7–26.
43. 2008 Meegaskumbura, M., A. Silva, **K. Maduwage** and R. Pethiyagoda. *Puntius reval*, a new barb from Sri Lanka (Teleostei: Cyprinidae: *Puntius*). *Ichthyological Exploration of Freshwaters* 19: 141–152.
44. 2008 Pethiyagoda, R., A. Silva, **K. Maduwage**. *Mystis ankutta* a new catfish from Sri Lanka (Teleostei: Bagridae). *Ichthyological Exploration of Freshwaters* 19: 233–242.
45. 2008 **Maduwage, K.**, M. Meegaskumbura, A. Silva & R. Pethiyagoda. Phylogenetic utility of hemipenial morphology in Sri Lankan agamid lizards. *Current Science* 95: 838–840.
46. 2008 Pethiyagoda, R., A. Silva, **K. Maduwage** & L. Kariyawasam. The Sri Lankan Five-eyed SpinyEel, *Macrogathus pentophthalmos* (Teleostei: Mastacembelidae), and its enigmatic decline. *Zootaxa* 1931: 37–48.

47. 2008 Pethiyagoda, R., A. Silva, **K. Maduwage** & M. Meegaskumbura *Puntius kelumi*, a new barb endemic to Sri Lanka (Teleostei: Cyprinidae). *Ichthyological Exploration of Freshwaters* 19: 201–214.
48. 2005 Bahir, M. M. & **K. P. Maduwage**. *Calotes desilvai*, a new agamid lizard from Morningside Forest, Sri Lanka. *The Raffles Bulletin of Zoology*, Suppl. 12: 381–392.
49. 2004 Batuwita, S., **K. P. Maduwage** and A. Silva. Snakes of Mount Gannoruwa, Central Sri Lanka. *Lyriocephalus*, 5: 150.
50. 2003 **Maduwage, K. P.**, A. Silva and S. Batuwita. Snakes killed on the Roads of the Gardens of University of Peradeniya. *Loris*, 23: 22–24.

Presentations at conferences

1. 2016. Fiona E Scorgie, Lisa F Lincz, **Kalana Maduwage**, Shaluka Jayamanne, Fahim Mohamed, Andrew Dawson, H Janaka de Silva, David G Lalloo, Nicholas A Buckle, Geoffrey K Isbister. Recovery of clotting factors following administration of fresh frozen plasma for Russell's viper (*Daboia russelii*) envenoming. Haematology Society of Australia and New Zealand. Melbourne. Australia.
2. 2015. **Maduwage K**, Scorgie F, Lincz L, O'Leary M, Isbister K. Effect of pro-coagulant snake venoms on different animal plasma. Asia Pacific Association of Medical Toxicology (APAMT), University of Western Australia, Perth, Australia.
3. 2015. Ratnayake IU, Fahim M, Shihana F, Dissanayake DM, Buckley NA, **Maduwage K**, Chaturanga U, Aslam Z, Isbister GK. Urinary Neutrophil Associated lipocalin is an early biomarker of acute kidney injury following Russell's viper envenoming. Asia Pacific Association of Medical Toxicology (APAMT), University of Western Australia, Perth, Australia.
4. 2015. **Maduwage K**, Buckley NA, de Silva HJ, Lalloo D, Isbister GK. Effect of pro-coagulant snake venoms on different animal plasma. Asia Pacific Association of Medical Toxicology (APAMT), University of Western Australia, Perth, Australia.
5. 2015. Silva A, **Maduwage K**, Siribaddana S, Isbister GK. Adult snakebite patients admitted to tertiary care centre in rural Sri Lanka: A cohort study. Asia Pacific Association of Medical Toxicology (APAMT), University of Western Australia, Perth, Australia.

6. 2015. Isbister GK, **Maduwage K**, Saiao A, Buckley NA, Jayamanne SF, Seyed S, et al. Population pharmacokinetics of an Indian F(ab')₂ snake antivenom in patients with Russell's viper bite. European Association of Poisons Centres and Clinical Toxicology (EAPCCT), Malta.
7. 2015. Indian Krait (*Bungarus caeruleus*) envenoming. A clinical and neurophysiological investigation of neuromuscular dysfunction. European Association of Poisons Centres and Clinical Toxicology (EAPCCT), Malta.
8. 2015. Effect of pro-coagulant snake venoms on different animal plasma. Australian Society for Medical Research (ASMR) conference, HMRI, Newcastle (March) Australia.
9. 2015. Efficacy of two Indian polyvalent snake antivenoms against coagulopathy and neurotoxicity of Sri Lankan snake venoms. Australian Society for Medical Research (ASMR) conference, HMRI, Newcastle (March) Australia.
10. 2014 Diagnosis of snake envenoming using simple phospholipase A₂ assay. North American Centre for Clinical Toxicology (NACCT) conference, New Orleans, USA. **(Informa Healthcare Award for the best Platform presentation)**
11. 2014 Detection of venom post-antivenom (Venom antigemaemia) is largely due to Vavaemia. International Society of Toxinology, Asia Pacific Conference (IST), Changsha, China.
12. 2014 Diagnosis of snake envenoming using simple phospholipase A₂ assay. The Australian Society for Medical Research New South Wales conference, Sydney Australia. **(ASMR Award for the Best overall poster)**
13. 2014. Measurement of venom and clotting functions of Russell's viper envenoming and response to antivenom treatment. European Association of Poisons Centres and Clinical Toxicology (EAPCCT), Brussels, Belgium.
14. 2014 Diagnosis of snake envenoming using simple phospholipase A₂ assay. Conference of Toxicology and Poisoning network of Australasia (TAPNA), Newcastle, Australia.
15. 2014 Detection of venom post-antivenom (Venom antigemaemia) is largely due to Vavaemia. Conference of Toxicology and Poisoning network of Australasia (TAPNA), Newcastle, Australia.
16. 2014 Diagnosis of snake envenoming using simple phospholipase A₂ assay. The Australian Society for Medical Research Satellite Scientific Meeting, Hunter Medical Research Institute, Newcastle, Australia. **(ASMR Award for the Best overall poster).**

17. 2013. Venom recurrence in Russell's viper (*Daboia russelii*) envenoming in Sri Lanka. 12th Asia Pacific Association of Medical Toxicology Conference, Dubai.
18. 2013. Development of rabbit polyclonal antibodies (pAb) against snake venoms in a resource poor setting. Conference of Toxicology and Poisoning network of Australasia (TAPNA), Newcastle, Australia.
19. 2012. Clotting studies and factor deficiencies of Hump-nosed pit viper (*Hypnale hypnale*) envenoming in Sri Lanka, 11th Asia Pacific Association of Medical Toxicology Conference, Hong-Kong.
20. 2012. Efficacy of two Indian polyvalent snake antivenoms against Sri Lankan Russell's viper (*Daboia russelii*) and Saw scaled viper (*Echis carinatus*) venom. 11th Asia Pacific Association of Medical Toxicology Conference, Hong-Kong.
21. 2011. The *in vitro* toxicity of venoms from South Asian Hump-nosed pit vipers (Viperidae: *Hypnale*), 10th Asia Pacific Association of Medical Toxicology Conference, Penang, Malaysia.
22. 2011. Comparative study of Merrem's hump-nosed pit viper (*Hypnale hypnale*) bites between two climatic zones (wet vs dry zone) in Sri Lanka. 10th Asia Pacific Association of Medical Toxicology Conference, Penang, Malaysia.
23. 2011. Hump-nosed pit viper (Genus: *Hypnale*) envenoming in Sri Lanka: A study of epidemiology and clinical profiles across species. 10th Asia Pacific Association of Medical Toxicology Conference, Penang, Malaysia.
24. 2011. A Descriptive Study of Offending Species and Epidemiology of Snake Bites of Two areas in the Dry Zone of Sri Lanka: Anuradhapura and Jaffna. Proceedings of the Peradeniya University Research Sessions. Sri Lanka.
25. 2011. Puschkumara J. **Maduwage K** et al. Effects of environmental temperature on visual and auditory reaction time in healthy young adults. *The Kandy Society of Medicine, 33rd Annual Academic Sessions*. 36-37.
26. 2011. Kularatne, S. A. M., Sivansuthan, S, Medagedara, S. C., **Maduwage, K.**, de Silva, A. Epidemiology of snake bites in Jaffna Peninsula: A hospital based study. *The Kandy Society of Medicine, 33rd Annual Academic Sessions*. 130.