Curriculum Vitae

Name:	Andrew Robinson
Address:	School of BioSciences
	School of Mathematics and Statistics
	The University of Melbourne
	Parkville VIC 3010, Australia
	Mobile: (+61) 0403 138 955 *Landline:* (+61) 03 8344 6410
	Email: apro@unimelb.edu.au
Date of Birth:	January 22, 1966.
Nationality:	Australian.

Academic Qualifications

PhD Forest Resources, 12/1998, *University of Minnesota, USA.* Title: "Forest ecosystem dynamics: a systematic approach to modelling in a model-rich environment".

MSc Statistics, 12/1997, *University of Minnesota, USA.* Title: "Using the variagraph to test lack of fit of a parametric regression model without replication".

MSc Forest Resources, 12/1997, *University of Minnesota, USA.* Title: "A review of area estimation by double sampling for forest inventory".

BSc (Hons 1st) Statistics, 12/1987, *University of Melbourne, Australia.* Title: "The Kalman filter".

Academic Affiliation Membership:
Elected Member of International Statistical Institute (ISI), current member of the Society for Risk Analysis; previously member of the Statistical Society of Australia Inc. (SSAI), the American Statistical Association (ASA), Society of American Foresters (SAF), and The Institute of Foresters of Australia (IFA).

Employment Record

1. *Director*, Centre of Excellence for Biosecurity Risk Analysis (CEBRA), University of Melbourne (1/2017–present).
2. *Reader and Associate Professor*, Schools of BioSciences and of Mathematics and Statistics, University of Melbourne (1/2015–present).
3. *Deputy Director*, CEBRA, University of Melbourne (7/2013–12/2016).
4. *Director* (A/g), Australian Centre of Excellence for Risk Analysis (ACERA), University of Melbourne (11/2012–4/2013).
5. *Deputy Director*, ACERA, University of Melbourne (7/2011–6/2013).
6. *Program Manager*, ACERA, University of Melbourne (7/2009–6/2011).
7. *Senior Lecturer*, Department of Mathematics and Statistics, University of Melbourne (7/2005–12/2014, confirmed in 2007).
8. *Associate Professor*, Department of Forest Resources, University of Idaho, USA (6/2004–6/2005).
9. *Assistant Professor*, Department of Forest Resources, University of Idaho, USA (12/1998–6/2004).
10. *Graduate Research Assistant, Casual Tutor and Casual Lecturer*, Department of Forest Resources, University of Minnesota (9/1994 to 11/1998).
11. *Tutor, Senior Tutor, Lecturer B*, Department of Forestry, Australian National University University (4/1991–8/1994).
12. *Research Officer, Senior Research Officer*, Australian Bureau of Statistics (1/1989–12/1990).

Publications

Books

1. **Robinson, A.P.**, Walshe, T., Burgman, M.A., and Nunn, M., eds. 2017. *Invasive Species: Risk Assessment and Management.* Cambridge University Press.
2. Jones, O.D., Maillardet, R.A., and **Robinson, A.P.** 2014. *An Introduction to Scientific Programming and Simulation, Using R, 2nd Edition.* Chapman & Hall/CRC.
   (1st edition published 2009; Simplified Chinese translation of 1st edition published 2015)
3. Hilbe, J.M., and **Robinson, A.P.** 2013. *Methods of Statistical Model Estimation.* Chapman & Hall/CRC.
4. **Robinson, A.P.** and Hamann, J.D. 2011. *Forest Analytics with R.* Springer.

Peer-reviewed Articles

1. Johnson, S., Hick, P., **Robinson, A.P.**, Rimmer, A., Tweedie, A., and Becker, J. 2019. The impact of pooling samples on surveillance sensitivity for the megalocytivirus Infectious spleen and kidney necrosis virus. Accepted, *Transboundary and Emerging Diseases.*
2. Trouvé, R., Nitschke, C.R., Andrieux, L., Willersdorf, T., **Robinson, A.P.**, and Baker, P.J. 2019. Competition drives the decline of a midstorey tree species. Habitat implications for an endangered marsupial. *Forest Ecology and Management* 447:26–34.
3. Kim, J.H., and **Robinson, A.P.**. 2019. Interval-based Hypothesis Testing and its Applications to Economics and Finance. *Econometrics* 7(2):1–21, https://doi.org/10.3390/econometrics7020021
4. Lane, S.E., Cannon, R.M., Arthur, A.D., and **Robinson, A.P.**. 2019. Sample size for inspection intended to manage risk within mixed consignments. *Neobiota* 42: 59–69. https://doi.org/10.3897/neobiota.42.29757
5. Hood, Y., Sadler, J., Poldy, J., Starkey, C.S., and **Robinson, A.P**. 2019. Biosecurity system reforms and the development of a risk-based surveillance and pathway analysis system for ornamental fish imported into Australia. *Preventive Veterinary Medicine*, 167, 159–168. https://doi.org/10.1016/j.prevetmed.2018.11.006
6. Lane, S., Hollings, T., Hayes, K.R., McEnnulty, F.R., Green, M., Georgiades, E., and **Robinson, A.P**. 2018. Risk Factors for Fouling Biomass: Evidence from Small Vessels in Australia *Biofouling*, 34 (9), 1032–1045. https://doi.org/10.1080/08927014.2018.1536202
7. Clarke-Errey, S., Stenekes, N., Kancans, R., Woodland, C., and **Robinson, A.P**. 2018. Undelivered risk: A counter-factual analysis of the biosecurity risk avoided by inspecting international mail articles. *NeoBiota*, 40:73–86. doi: 10.3897/neobiota.40.28840
8. Van Andel, M., Hollings, T., Bradhurst, R, **Robinson, A.P.**, Burgman, M., Gates, C., Bingham, P., and Carpenter, T. 2018. Does size matter to models? Exploring the effect of herd size on outputs of a herd-level disease spread simulator. *Frontiers in Veterinary Science*, 5:78. DOI: 10.3389/fvets.2018.00078
9. Hollings, T., Burgman, M, van Andel, M., Gilbert, M., Robinson, T., and **Robinson, A.P.** 2018. How do you find the Green Sheep? A critical review of the use of remotely sensed imagery to detect and count animals. *Methods in Ecology and Evolution* Early view, DOI: 10.1111/2041-210X.12973.
10. Decrouez, G., and **Robinson, A.P.** 2018. Bias-Corrected Estimation in Continuous Sampling Plans. *Risk Analysis*, 38(1):177–193. DOI: 10.1111/risa.12811
11. Vino, T, Singh, G.R., Davison, B., Campbell, P.T., Lydeamore, M.J., **Robinson, A.P.**, McVernon, J., Tong, S.Y.C., and Geard, N. 2017. Indigenous Australian household structure: a simple data collection tool and implications for close contact transmission of communicable diseases. *PeerJ 5:e3958* https://doi.org/10.7717/peerj.3958
12. **Robinson, A.P.** and Turner, K.F. 2017. Hypothesis Testing for Topological Data Analysis. *Journal of Applied and Computational Topology* 1(2): 241–261.
13. Hollings, T., **Robinson, A.P.**, van Andel, M., Jewell, C., and Burgman, M. 2017. Species distribution models: A comparison of statistical approaches for livestock and disease epidemics. *PLOS One* 12 (8), e0183626

14. Trouvé, R, Nitschke, C.R., **Robinson, A.P.**, and Baker, P.J. 2017. Estimating the self-thinning line from mortality data. *Forest Ecology and Management* 402: 122–134.

15. Lane, S., Arthur, T., Aston, C., Zhao, S., and **Robinson, A.P.**, 2017. When does poor governance presage biosecurity risk? *Risk Analysis* 38(4):653–665.

16. Capes, H., Maillardet, R.J., Baker, T.G., Weston, C.J., McGuire, D., Dumbrell, I.G., and **Robinson, A.P.**. 2017. The Allometric Quarter-Power Scaling Model and its Applicability to Grand Fir and Eucalyptus Trees. *Journal of Agricultural, Biological, and Environmental Statistics*, 22(4): 562–584. DOI: 10.1007/s13253-017-0292-7

17. Clarke, S.J., Hollings, T., Liu, N., Hood, G., and **Robinson, A.P.** 2017. Biosecurity risk factors presented by international vessels: a statistical analysis. *Biological Invasions*, 19(10), 2837–2850. DOI 10.1007/s10530-017-1486-1.

18. van Andel, M., Jewell, C., McKenzie, J., Hollings, T., **Robinson, A.P.**, Burgman, M.A., Bingham, P., and Carpenter, T. 2017. Predicting farm-level animal populations using environmental and socio-economic variables. *Preventive Veterinary Medicine* 145:121–132.

19. McNeill, M.R., Phillips, C.B., **Robinson, A.P.**, Aalders, L., Richards, N., Young, S., Dowsett, C., James, T., and Bell, N. 2017. Defining the biosecurity risk posed by transported soil: Effects of storage time and environmental exposure on survival of soil biota. *NeoBiota*, 32: 65–88.

20. Decrouez, G., and **Robinson, A.P.** 2016. Measuring the inspectorate: point and interval estimates for performance indicators. *Journal of Agricultural, Biological, and Environmental Statistics*, 21(2) 382–401.

21. **Robinson, A.P.**, McLarin, M., and Moss, I. 2016. A simple way to incorporate uncertainty and risk into forest harvest scheduling. *Forest Ecology and Management*, 359:11–18.

22. Ashdown, M.L., **Robinson, A.P.**, Yatomi-Clarke, S.L., Ashdown, M.L., Allison, A., Abbott, D, Markovic, S.N, Coventry, B.J. 2015. Chemotherapy for Late-Stage Cancer Patients: Meta-Analysis of Complete Response Rates. *F1000Research*, 4:232 (doi: 10.12688/f1000research.6760.1)

23. Bisono, I.N., and **Robinson, A.P.** 2015. Spatial Bayesian Model for Maximum Temperature. *International Journal of Applied Mathematics and Statistics* 53 (6), 137–144.

24. Jaskierniak, D., Benyon, R., Kuczera, G., and **Robinson, A.P.** 2015. A new method for measuring stand sapwood area in forests. *Ecohydrology* 8(3):504–517

25. Decrouez, G., and **Robinson, A.P.** 2013. Time-series models for border inspection data. *Risk Analysis*, 33(12): 2142–2153.

26. Holliday, J.L., Jones, S.A., Simpson, J.A., Edwards, J., **Robinson, A.P.**, and Burgman, M.A. 2013. A Novel Spore Collection Device for Sampling Exposure Pathways: A Case Study of *Puccinia psidii*. *Plant Disease* 97 (6): 828–834.

27. Burgman, M.A., McCarthy, M.A., **Robinson, A.P.**, Hester, S.M., McBride, M.F., Elith, J., and Panetta, F.D. 2013. Improving decisions for invasive species management: reformulation and extensions of the Panetta–Lawes eradication graph. *Diversity and Distributions* 19(5–6) 603–607.

28. Karavarsamis, N., **Robinson, A.P.**, Hepworth, G., Hamilton, A.J., and Heard, G.W., 2013. Comparison of four bootstrap-based interval estimators of species occupancy and detection probabilities. *Australian and New Zealand Journal of Statistics* 55(3):235–252.

29. Leites, L., Zubizaretta-Gerendiain, A., **Robinson, A.P.** 2013. Modeling mensurational relationships of plantation-grown loblolly pine (*Pinus taeda* L.) in Uruguay. *Forest Ecology and Management* 289:455–462.

30. Leites, L., Rehfeldt, G.E., **Robinson, A.P.**, Crookston, N.L., and Jaquish, B. 2012. Possibilities and limitations of using historic provenance tests to infer forest species growth responses to climate change. *Natural Resource Modeling*, 25(3): 409–433.

31. Decrouez, G, and **Robinson, A.P.** 2012. Confidence intervals for the weighted sum of two independent binomial proportions. *Australian and New Zealand Journal of Statistics*, 54(3) 281–299.

32. Leites, L., **Robinson, A.P.**, Rehfeldt, G.E., Marshall, J.D., and Crookston, N.L. 2012. Height-growth response to climatic changes differ among populations of Douglas-fir: a novel analysis of historic data. *Ecological Applications*, 22: 154–165.

33. Leontovich, A.A., Dronca, R.S., Suman, V.J., Ashdown, M.L., Nevala, W.K., Thompson, M.A., **Robinson, A.P.**, Kottschade, L.A., Kaur, J.S., McWilliams, R.R., Ivanov, L.V., Croghan, G.A., and Markovic, S.N. 2012. Fluctuation of systemic immunity in melanoma and implications for timing of therapy. *Frontiers in Bioscience* E4, 958–975.

34. **Robinson, A.P.**, Lane, S., Therien, G. 2011. Fitting Forestry Models Using Generalized Additive Models: A Taper Model Example. *Canadian Journal of Forest Research* 41:1909–1916.

35. **Robinson, A.P.**, Burgman, M.A., and Cannon, R. 2011. Allocating surveillance resources to reduce ecological invasions: maximizing detections and information about the threat. *Ecological Applications* 21(4):1410–1417.

36. Lane, S., and **Robinson, A.P.** 2011. An alternative objective function for fitting regression trees to functional response variables. *Computational Statistics and Data Analysis*, 55:2557–2567.

37. Lazaridis, D., Verbesselt, J., and **Robinson, A.P.** 2011. Penalized regression techniques for prediction: a case-study for predicting tree mortality using remotely-sensed vegetation indices. *Canadian Journal of Forest Research*, 41(1):24–34.

38. Jaskierniak, D., Lane, P., **Robinson, A.**, and Lucieer, A. 2011. Extracting LiDAR indices to characterise multilayered forest structure using mixture distribution functions. *Remote Sensing of Environment*, 115: 575–587.

39. Eyles, A., **Robinson, A.P.**, Smith, D., Carnegie, A., Smith, I., Stone, C., and Mohammed, C. 2011. Quantifying stem growth loss at the tree-level in a *Pinus radiata* plantation to repeated attack by the aphid, *Essigella californica*. *Forest Ecology and Management*, 261: 120–127.

40. Rezvani, M, Cousens, R.D., Zaefarian, F., Karim-Mojeny, H., and **Robinson, A.P**. 2010. Shapes of ballistic seed dispersal distributions: a comparison of *Oxalis corniculata L.* with a theoretical model. *Weed Research*, 50(6): 631–637.

41. Lane, S., **Robinson, A.P.**, and Baker, T. 2010. The functional regression tree method for diameter distribution modelling. *Canadian Journal of Forest Research*, 40(9): 1870–1877.

42. Smith, A.M.S., Falkowski, M.J., Hudak, A.T., Evans J.S., **Robinson, A.P.**, and Steele, C.M. 2009. A cross-comparison of field, spectral, and lidar estimates of forest canopy cover. *Canadian Journal of Remote Sensing*, 35(5): 447–459.

43. Verbesselt, J., **Robinson, A.P.**, Stone, C., and Culvenor, D. 2009. Forecasting tree mortality using change metrics derived from MODIS satellite data. *Forest Ecology and Management*, 258:1166–1173.

44. Sanchez, D.M., Rachlow, J.L., **Robinson, A.P.**, and Johnson, T.R. 2009. Survey indicators for pygmy rabbits: temporal trends of burrow systems and pellets. *The Western North American Naturalist*, 69(4):426–436.

45. Coventry, B.J., Ashdown, M.L., Quinn, M.A., Markovic, S.N, Yatomi–Clarke, S.L., **Robinson, A.P.** 2009. CRP identifies homeostatic immune oscillations in cancer patients: a potential treatment targeting tool? *Journal of Translational Medicine*, 7:102.

46. Dickinson, J., **Robinson, A.P.**, Gessler, P.E., Harrod, R., Smith, A. 2009. Flatland in flames: a two-dimensional canopy fire propagation model. *International Journal of Wildland Fire* 18: 527–535.

47. Hall, P.G., **Robinson, A.P.** 2009. Reducing variability of cross-validation for smoothing-parameter choice. *Biometrika* 96: 175–186.

48. Leites, L.P., **Robinson, A.P.**, Crookston, N.L. 2009. Accuracy and equivalence testing of crown ratio models and assessment of their impact on diameter growth and basal area increment predictions of two variants of the Forest Vegetation Simulator. *Canadian Journal of Forest Research* 39: 655–665.

49. Baker, P.J., Bunyavejchewin, S., **Robinson, A.P.** 2008. The impacts of large-scale, low-intensity fires on the forests of continental South–east Asia. *International Journal of Wildland Fire* 17 (6): 782–792.

50. **Robinson, A.P.**, Hamann, J.D. 2008. Correcting for spatial autocorrelation in sequential sampling. *Journal of Applied Ecology.* 45(4) 1221–1227.

51. Baker, P.J., **Robinson, A.P.**, Ewel, J.J. 2008. Sudden and sustained response of *Acacia koa* to crown release in stagnant stands. *Canadian Journal of Forest Research* 38: 656–666.

52. Salas, C., Stage, A.R., **Robinson, A.P.** 2008. Modelling effects of overstory density and competing vegetation on tree height growth. *Forest Science* 54(1) 107–122.

53. Froese, R.A., **Robinson, A.P.** 2007. A validation and evaluation of the Prognosis individual-tree basal area increment model. *Canadian Journal of Forest Research* 27: 1438–1449.

54. Gass, T.M., **Robinson, A.P.** 2007. A hierarchical analysis of stand structure, composition, and burn patterns as indicators of stand age in an Engelmann spruce — subalpine fir forest. *Canadian Journal of Forest Research* 27: 884–894.

55. **Robinson, A.P.** 2007. Augmenting R with Unix Tools. *R news* 7(1):30–32.

56. Duursma, R.A., Marshall, J.D., **Robinson, A.P.**, Pangle, R.E. 2007. Description and test of a simple process-based model of forest growth for mixed-species stands. *Ecological Modelling* 203, 297–311.

57. Murphy, M.M., Kendall, K.C., **Robinson, A.P.**, Waits, L.P. 2007. The impact of time and field conditions on brown bear (*Ursus arctos*) faecal DNA amplification. *Conservation Genetics*, online.

58. Strand, E.K., **Robinson, A.P.**, Bunting, S.C., 2007. Spatial patterns on the sagebrush steppe/Western juniper ecotone. *Plant Ecology*, online.

59. Wagner, R.G., **Robinson, A.P.**, 2006. Critical period of interspecific competition for four northern conifers: 10–year growth response and associated vegetation dynamics. *Canadian Journal of Forest Research* 36, 2474–2485.

60. Harlow, B.A., Marshall, J.D., **Robinson, A.P.**, 2006. A global comparison of $\delta^{13}C$ from whole wood, extractive-free wood, and holocellulose. *Tree Physiology* 26, 767–774.

61. Radtke, P.J., **Robinson, A.P.**, 2006. A Bayesian strategy for combining predictions from empirical and process-based models. *Ecological Modelling* 190, 287–298.

62. **Robinson, A.P.**, Duursma, R.A., Marshall, J.D., 2005. A regression-based equivalence test for model validation: shifting the burden of proof. *Tree Physiology* 25, 903–913.

63. Duursma, R.A., Marshall, J.D., Nippert, J.B., Chambers, C.C., **Robinson, A.P.**, 2005. Estimating leaf-level parameters for ecosystem process models: a study in mixed conifer canopies on complex terrain. *Tree Physiology* 25, 1347–1359.

64. Koyama, A., Kavanagh, K., **Robinson, A.P.**, 2005. Marine nitrogen in central Idaho riparian forests: evidence from stable isotopes. *Canadian Journal of Fisheries and Aquatic Sciences* 62, 518–526.

65. Medlyn, B.E., **Robinson, A.P.**, Clement, R., McMurtrie, R.E., 2005. On the validation of models of forest CO_2 exchange using eddy covariance data: some perils and pitfalls. *Tree Physiology* 25, 839–857.

66. Leites, L., **Robinson, A.P.**, 2004. Improving taper equations of loblolly pine with crown dimensions by accommodating correlated errors and assessing explainable variation in a mixed-effects modeling framework. *Forest Science* 50(2), 204–212.

67. Pocewicz, A.L., Gessler, P.E., **Robinson, A.P.**, 2004. The relationship between effective plant area index and Landsat spectral response across elevation, solar insolation, and spatial scales, in a northern Idaho forest. *Canadian Journal of Forest Research* 34, 465–480.

68. **Robinson, A.P.**, 2004. Preserving correlation while modelling diameter distributions. *Canadian Journal of Forest Research* 34, 221–232.

69. **Robinson, A.P.**, Froese, R.E., 2004. Model validation using equivalence tests. *Ecological Modelling* 176, 349–358.

70. **Robinson, A.P.**, Pocewicz, A.L., Gessler, P.E., 2004. A cautionary note on scaling variables that appear only in products in ordinary least squares. *Forest Biometry, Modelling and Information Sciences* 1, 83–90.

71. **Robinson, A.P.**, Wykoff, W.R., 2004. Imputing missing height measures using a mixed-effects modeling strategy. *Canadian Journal of Forest Research* 34, 2492–2500.

72. Duursma, R.A., Marshall, J.D., **Robinson, A.P.**, 2003. Leaf area index inferred from solar beam transmission in mixed conifer forests on complex terrain. *Agricultural and Forest Meteorology* 118, 221–236.

73. Duursma, R.A., **Robinson, A.P.**, 2003. Bias in the mean tree model as a consequence of Jensen's inequality. *Forest Ecology and Management* 186(1-3), 373–380.

74. **Robinson, A.P.**, Ek, A.R., 2003. Description and validation of a hybrid model of forest growth and stand dynamics for the Great Lakes region. *Ecological Modelling* 170, 73–104.

75. **Robinson, A.P.**, Monserud, R.A., 2003. Criteria for comparing the adaptability of forest growth models. *Forest Ecology and Management* 172(1), 53–67.

76. **Robinson, A.P.**, Weisberg, S., 2003. Using the variagraph to test lack of fit of a parametric regression model without replication. *Communications in Statistics: Simulation and Computation* 32(3), 733–745.

77. Rutledge, C.E., **Robinson, A.P.**, Eigenbrode, S.D., 2003. Effects of a simple plant morphological mutation on the arthropod community and the impacts of predators on a principal insect herbivore. *Oecologia* 135, 39–50.

78. **Robinson, A.P.**, Ek, A.R., 2000. The consequences of hierarchy for modelling in forest ecosystems. *Canadian Journal of Forest Research* 30(12), 1837–1846.

79. **Robinson, A.P.**, Hamlin, D.C., Fairweather, S.E. 1999. Improving forest inventories: three ways to incorporate auxiliary information. *Journal of Forestry* 97(12):38–42.

80. **Robinson, A.P.**, Burk, T.E. 1998. Sequential sampling of normal and non-normal populations. *Canadian Journal of Forest Research* 28(5): 660–664.

81. Ek, A.R., **Robinson, A.P.**, Radtke, P.R., Walters, D.K. 1997. Development and testing of regeneration imputation models for forests in Minnesota. *Forest Ecology and Management* 94(1–3): 129–140.

82. **Robinson, A.P.**, Gregoire, T.G., Valentine, H.T. 1997. Cut-off importance sampling of bole volume. *Silva Fennica* 31(2): 153–160.

83. Er, K.B.H., **Robinson, A.P.**, Tidemann, C.R. 1995. Importance of sampling duration and strip width in use of the fixed-width strip transect method for estimation of bird abundance and species diversity. *Corella* 19: 109–114.

84. **Robinson, A.P.**, Wood, G.B. 1994. Individual tree volume estimation: a new look at new systems. *Journal of Forestry* 92(12): 25–29.

85. Claridge, A.W., **Robinson, A.P.**, Tanton, M.T., and Cunningham, R.B. 1993. Seasonal production of hypogeal fungal sporocarps in a mixed-species Eucalypt forest stand in south-eastern Australia. *Australian Journal of Botany* 41:145–67.

Patents

1. Ashdown, M.L., and **Robinson, A.P.** 2016. Computer systems for treating diseases. United States Patent 9,268,908. `http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9,268,908.PN.&OS=PN/9,268,908&RS=PN/9,268,908`

2. Ashdown, M.L., and **Robinson, A.P.** 2016. Computer systems for treating diseases. United States Patent 9,239,904. `http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9,239,904.PN.&OS=PN/9,239,904&RS=PN/9,239,904`

3. Ashdown, M.L., and **Robinson, A.P.** 2015. Methods of treating diseases. European Union Patent EP 2 435 825 B1.

4. Ashdown, M.L., and **Robinson, A.P.** 2015. Methods of treating diseases. United States Patent 9,122,778. `http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetahtml%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=9,122,778.PN.&OS=PN/9,122,778&RS=PN/9,122,778`

Chapters in Books

1. **Robinson, A.P.** 2019. Testing Simulation Models Using Frequentist Statistics. In: Beisbart, C. & Saam, N.J. (eds.), Computer Simulation Validation – Fundamental Concepts, Methodological Frameworks, and Philosophical Perspectives. Springer, pp 465–496.

2. Jones, O., **Robinson, A.P.**, Shield, M., and Sibley, J. 2017. The allocation of inspection resources. In: Invasive Species: Risk Assessment and Management. Eds: Robinson, A.P., Walshe, T., Burgman, M.A., and Nunn, M. Cambridge University Press, pp 1–16.

3. **Robinson, A.P.**, Chisholm, M., Mudford, R., Maillardet, R. 2015. Ad hoc solutions to estimating pathway non compliance rates using imperfect and incomplete data. In: Biosecurity Surveillance: Quantitative Approaches. Eds: Frith Jarrad, Samantha Low-Choy, Kerrie Mengersen. CABI, pp 167–180.

4. Hester, S., Sergeant, E., **Robinson, A.P.**, and Schultz, G. 2015. Animal, Vegetable, or ...? A case study in using animal-health monitoring tools to solve a plant-health surveillance problem. In: Biosecurity Surveillance: Quantitative Approaches, Eds: Frith Jarrad, Samantha Low-Choy, Kerrie Mengersen. CABI, pp 313–333.
5. LeMay, V., **Robinson, A.P.**, 2004. Inventory: Design, Performance and Evaluation of Experiments. In: Encyclopedia of Forest Sciences. Elsevier Limited, pp 158–164.

Presentations

Invited

1. 2019. Risk assessment for biosecurity: Where to Next, and Why? National Symposium on Biological Invasions. **Keynote** May 15–17. Tulbagh, Western Cape, South Africa.
2. 2019. Predictions from Machine Learning in Biosecurity. National Biosecurity Committee Working Group: Innovation and Intelligence. February 4, 2019. Brisbane, Australia.
3. 2018. Biosecurity and risk analysis: multiple disciplines or multidisciplinary? **Keynote** Society of Risk Analysis Australia and New Zealand, September 26–27, 2018. Sydney, Australia.
4. 2018. Collaborative approaches to evidence-based policy making in biosecurity. **Keynote** for Department of Agriculture and Water Resources National Science Exchange Conference. 1–2 May 2018, Canberra, Australia.
5. 2018. Informing Biosecurity Policy Using Data. Working Group on Agriculture, Food and Forestry Cooperation. 14 February 2018, Melbourne, Australia.
6. 2018. Life as a researcher. AMSIConnect, 8 February 2018, Melbourne, Australia.
7. 2017. Using Large Regulatory Datasets to Inform Science & Biosecurity. New Zealand Plant Protection Society Symposium. August 7 2017, Tauranga, NZ.
8. 2017. Translating information into change. **Keynote** for International Symposium for Risk-Based Sampling. North American Plant Protection Organization. June 26–30, Baltimore, MD.
9. 2017. Biosecurity Risk, and What To Do With It. Biosecurity and Food Safety Strategic Planning meeting, NSW DPI, May 17 2017, Sydney, Australia.
10. 2016. A Risky Business: Border Biosecurity on a Budget. Association of Biosafety for Australia & New Zealand 6th Annual Conference, 7–11 November, Melbourne, Australia.
11. 2015. Pest Risk Analysis in Australia. OIRSA Workshop on protocols for regional pest risk analyses, December 8–11 2015, Antigua, Guatemala.
12. 2015. Equivalence Testing for Model Validation — Are You a Lumper or Are You a Splitter? How to Build Trust in Computer Simulations Towards a General Epistemology of Validation. Hosted by the VolkswagenStiftung July 9–11, Hannover, Germany.
13. 2015. Data Deluge: Can Policy Follow Science? In: People and Power: Will We Recognize the World in 2030? Annual June Board Meeting, Salzburg Global Seminar, June 26–28, Salzburg, Austria.
14. 2015. Science & Policy Colon Delicately Ironic Simile. **Keynote** Dinner presentation, Department of Agriculture National Science Exchange Conference. May 27, 2015. NCC, Canberra.
15. 2015. Data: the Bigger They Are, The Harder We Fall. **Keynote** for BioBAD: Big Data Analytics for Biosecurity, at the 31st IEEE International Conference on Data Engineering, 13–17 April 2015. Seoul, Korea.
16. 2014. Approaches to Targeting Biosecurity Risk. Department of Agriculture 2014 Biosecurity Roundtable, April 4, 2014. Melbourne, Australia.
17. 2014. Approaches to Targeting Biosecurity Risk: Adding Value to Valued Biosecurity. ABARES National Outlook Conference, March 5, 2014. Canberra, Australia.
18. 2013. How to win friends and influence people: automatically assigning resources based on risk. Department of Agriculture Public Seminar, November 11, 2013. Canberra, Australia.
19. 2013. Using Border Information in Smarter Ways for Identifying Risks and Monitoring Performance of Risk Management. New Zealand Plant Protection Society Symposium: Risk Analysis for Imports and Exports. August 12 2013 Napier, New Zealand.
20. 2013. Panelist, 'Can Maths Save the Planet?' Public Forum at Eco-Stats Symposium, July 11–12 2013, The University of New South Wales.
21. 2013. Risk, Reward, and Uncertainty: The Personal, the Social, and the Environmental. Invited Presentation for Quarterly Safety Meeting, Exxon Mobil. 20 June 2013. Melbourne, Australia.

Contributed

1. Smarter border biosecurity: a strategic risk-based approach to allocating effort. Australian Biosecurity Symposium. June 12–13 2019, Gold Coast.

2. Undelivered Risk: a Counter-Factual Analysis of the Biosecurity Risk Avoided by Inspecting International Mail. Australian Biosecurity Symposium. June 12–13 2019, Gold Coast.

3. Does Size Matter? (To Biosecurity Risk at the Border) SRA 5th World Congress on Risk, May 6–8 2019, Cape Town, South Africa.

4. Proportional allocation of inspection resources to heterogeneous strata delivers nominal sensitivity: Contradicting an international regulatory standard. 12th Meeting of the International Pest Risk Research Group. 15–18 October 2018. Taichung City, Taiwan.

5. Better Biosecurity and Other Challenges: Mathematics and Statistics at 20 paces. BioSciences Visions Seminar. 28 August 2018. Melbourne, Australia.

6. Working with government — innovative approaches to evidence-based policy-making. B3 2018 Conference. May 8, 2018. Wellington, New Zealand.

7. A Discussion of Sample Sizes for Inspection. Biosecurity Data Analytics Working Group. April 23–24, 2018. Melbourne, Australia.

8. Introduction to CEBRA. Biosecurity Data Analytics Working Group. April 23–24, 2018. Melbourne, Australia.

9. Making Sense of Absence: A Bayesian Framework for Surveillance. 11th Meeting of the International Pest Risk Research Group. 28 August–1 September, 2017. Ottawa, Canada.

10. Nil finds matter. Department of Agriculture and Water Resources National Science Exchange Conference. 22–23 August, 2017, Cairns, Australia.

11. More Joy of Text. Data Science Melbourne October 5 2016, Melbourne, Australia.

12. Sampling Interceptions for Risk Identification. 10th Meeting of the International Pest Risk Research Group. 23–26 August 2016. Parma, Italy.

13. Data Mining for Biosecurity Regulation. Canberra Data Scientists August 10, 2016. Canberra, Australia.

14. CEBRA: A Case Study in Academic/Government Collaboration. B3 2016 Conference. May 10, 2016. Wellington, New Zealand.

15. CEBRA: A Case Study in Bilateral Academic/Government Collaboration. Australia-New Zealand Plant Health Forum. March 3 2016, Canberra, Australia.

16. United by Common Purpose: Bridging Australia and New Zealand's Biosecurity Research Investments. SRA 4th World Congress on Risk, Singapore.

17. United, We Stand: Combining Cross-Governmental Data Resources to Refine Border Activities. BioBAD: Big Data Analytics for Biosecurity, at the 31st IEEE International Conference on Data Engineering, 13–17 April 2015. Seoul, Korea.

18. Costs and Benefits of Incorporating Uncertainty into Forest Harvest Scheduling. Society of American Foresters, October 7–11, 2014. Salt Lake City UT.

19. When does poor governance presage biosecurity risk? Society for Risk Analysis – Australia and New Zealand 8th Annual Conference, August 26–27, 2014. Palmerston North, New Zealand.

20. ML vs MRR: Weibull Parameter Estimation for Making Decisions. Joint Statistical Meetings, August 3–7 2014. Boston MA.

21. Using Inspection Information to Identify and Ameliorate Risks, and Monitor Performance of Risk Management. CSIRO Maths of Planet Earth Biosecurity and Bioinvasion Workshop. September 12, 2013. Canberra, Australia.

22. Performance Indicators for Regulatory Inspectorates. Society of Risk Analysis – Australia and New Zealand 7th Annual Conference. September 12, 2013. Canberra, Australia.

23. Assessing Change — Cultivating Data. ABARES Cardinia Regional Outlook Conference, May 2, 2013, Pakenham, Australia.

24. S3 Classes. Melbourne R Users Network. August 12 2012.

25. Performance Indicators. World Congress on Risk. July 20, 2012. Sydney, Australia.

26. Reconciliation Exercises for Fun and Profit. Western Mensurationists Meeting, June 11–12, 2012, Newport, Oregon.
27. To R and Not to R, and When. Melbourne R Users Network. September 15 2010.
28. Quarantine Inspection: How Risky a Business? Joint Statistical Meetings July 31–August 4, 2010, Vancouver, Canada.
29. A quantitative tool for model validation: shifting the burden of proof. International Conference on Modeling Forest Production, IUFRO 4.01.99 Meeting April 19–21, 2004, Vienna, Austria.
30. Quantitative education: what did you need, and what do your employees need these days? Presented at I.N.G.Y. Technical Workshop January 22, 2004, Spokane, Washington, USA.
31. Testing forest growth models using field data. Presented at Western Mensurationists Meeting, July 1–3, 2003, Victoria, Canada.
32. Can a process model produce a diameter distribution? Presented at Symposium on Statistics and Information Technology in Forestry, IUFRO 4.11 Meeting September 9–12, 2002, Blacksburg, Virginia.
33. Hierarchical models for hierarchical systems. Presented at Forest Biometry, Modelling and Information Science, IUFRO 4.11 Meeting June 25–29, 2001, Greenwich.
34. Reverse-engineering Forest Growth Models to Recover Data Sets for Further Analysis. Presented at Forest Modelling for Ecosystem Management, Forest Certification, and Sustainable Management Conference, August 12–17, 2001. Vancouver, BC.
35. Hypothesis testing: a jaundiced view. Presented at: Western Forest Mensurationists Meeting, June 18–21, 2000, Whitefish, Montana.
36. The hidden risks of sequential inventory. Presented at: Western Forest Mensurationists Meeting, June 21–22, 1999, Penticton, British Columbia.
37. Auxiliary information in forestry. Presented at: A1 Inventory Technical Session, SAF National Convention, September 11–15, 1999. Portland, Oregon.
38. Process modeling of regeneration. Presented at: Midwest Forest Mensurationists Meeting, September 8–10, 1997. Keshena, Wisconsin.
39. An assessment of regeneration modeling approaches in forest growth simulators. Presented at: IUFRO 1.14.00 Interdisciplinary Uneven-aged Silviculture Symposium, September 15–19, 1997. Corvallis, Oregon.
40. The variagraph concept in diagnostics for models. Presented at: Midwest Forest Mensurationists Meeting, September 9–12, 1996. Lutsen, Minnesota.

Seminars / Workshops

1. 2016. Making Better Decisions for Managing Invasive Species. June 1 2016. University of Minnesota, Minnesota, USA.
2. 2016. Quarantine Regulator's Workshop, 3 days, with the Department of Agriculture and Water Resources' Border Compliance Division. Melbourne, Australia.
3. 2015. University of Melbourne Environmental Seminar Series, October 21 2015, Melbourne, Australia.
4. 2015. Quarantine Regulator's Workshop, 3 days, with the Department of Agriculture's Border Compliance Division. Pattaya, Thailand.
5. 2015. Better Biosecurity Risk Analysis. 3/7/2015. Ilia State University, Tbilisi, Georgia.
6. 2015. Biosecurity Risk Analysis. 20/4/2015. Quarantine and Inspection Agency, Seoul, South Korea.
7. 2015. R. Victorian Linux Users Group. 3/2/2015.
8. 2014. Biosecurity Risk Analysis. 13–14/10/2014. SENASA, Lima, Peru.
9. 2011. Quarantine Regulator's Workshop, 3 days, with the Australian Quarantine Inspection Service. Kuala Lumpur, Malaysia.
10. 2011. R Workshop for Department of Agriculture, Fisheries and Forestry. 29–31/3/2011. Canberra, Australia.
11. 2010. Risk Training Workshop, 9–10/3/2010, with Mark Burgman. Christchurch, New Zealand.
12. 2009. Cargo Risk Workshop, 10/11/2009. Department of Agriculture, Fisheries and Forestry, Canberra, Australia.

Consulting Workshops

1. 2015. Risk analysis — statistics for the Office of Transport Security (1 day, twice). Crawford School of Public Policy, ANU, Canberra.
2. 2014. R Workshop for National Australia Bank (2 days). Melbourne, Australia.
3. 2012. R Workshop for Southern California Coastal Water Research Project (1 day). Costa Mesa, CA.
4. 2011. Spatial Statistics, 1 day, with David Fox, Environmetrics. DPI Victoria, Rutherglen.
5. 2010. ForValueNet Workshop, 3 days, with others. University of British Columbia, Vancouver, Canada.
6. 2009. icebreakeR R Workshop, 3 days. CSIRO Forestry, Hobart, TAS, Australia (Delivered twice).
7. 2009. icebreakeR R Workshop, 3 days. CSIRO Forestry, Clayton, VIC, Australia.
8. 2008. R-ASC2008 R Workshop, 3 days. With John Maindonald and others, University of Melbourne, VIC, Australia.
9. 2008. icebreakeR R Workshop, 2 days. CSIRO Forestry, Clayton, VIC, Australia.
10. 2007. R Workshop, 2 days. With David Tait, University of British Columbia, Canada.
11. 2007. icebreakeR R Workshop, 2 days. Timberline Corporation, Vancouver, CA.
12. 2007. icebreakeR R Workshop, 2 days. University of Idaho, Moscow, ID, USA.
13. 2006. R Workshop R Workshop, 2 days. University of British Columbia, Canada.
14. 2004. Freely Available Tools for Forest Inventories: Do More With What You Have, 2 days. With Jeff Hamann, Wilsonville, OR, USA.
15. 2004. icebreakeR R Workshop, 1 day. University of Idaho, Moscow, ID, USA.

Posters

1. **Robinson, A.P.**, Burgman, M.A., and Cannon, R. 2019. Using hypothesis test frameworks for handling uncertainty in allocating surveillance resources. Conference on Uncertainty in Risk Analysis. February 21–22, Berlin, Germany.

2. Clarke, S., Stenekes, N., Kancans, R., Woodland, C., and **Robinson, A.P.** 2015. Red Letters and Where They Are Going. IEEE International Symposium on Big Data Visual Analytics. September 22–25, Hobart, Australia.

3. **Robinson, A.P.** 2014. Making Principled Predictions: A Truth Serum for Interrogating Big Data. ForestSat 2014, November 4–7, Riva Del Garda, Italy.

4. Quinn, M.A., Cebon, J., Nicholau, T., Markovic, S.N., Yatomi-Clarke, S.L., **Robinson, A.P.**, Ebert, L., Grossman, P., La Scala, B., Ashdown, M.L., 2006. Serial measurements of serum C-Reactive Protein (CRP) oscillate in cancer patients. Can CRP be used as a surrogate biomarker for immune regulation? CRI Symposium: Cancer Immunotherapy 2006, Oct. 4–6, 2006 Manhattan Conference Center, New York, NY.

Technical Reports

ACERA / CEBRA (Peer reviewed)

The following peer-reviewed techical reports describe the work that I performed for the Department of Agriculture and Water Resources (then, Department of Agriculture and before that Department of Agriculture, Fisheries and Forestry, DAFF) during my time with the Australian Centre of Excellence for Risk Analysis (ACERA) and the Centre of Excellence for Biosecurity Risk Analysis (CEBRA).

1. Proportional Value of Interventions across Pathways and Layers of the Biosecurity System. **A. Robinson**, M. Welsh, M. Ormsby, E. Brockerhoff, and C. Reed. Tech. Rep. 170621. CEBRA, 2018. 30 p.
2. Scoping the value and performance of interventions across the NZ Biosecurity system. **A. Robinson**, E. Brockerhoff, and M. Ormsby. Tech. Rep. 1606E. CEBRA, 2018. 33 p.
3. Evaluating the Health of Australia's Biosecurity System. By: K. Schneider, H. Fraser, A. Dodd, **A. Robinson**, E. Arndt. Tech. Rep. 1607b 6. CEBRA, 2018. 50 p.

4. Identifying Unexpected Biosecurity Risks. By: M. Hoffman and **A. Robinson**. Tech. Rep. 1606b. CEBRA, 2018. 36 p.

5. Expert elicitation for Cargo Pathway Leakage, By: **A. Robinson**, M. Hoffmann, and J. Carey. Tech. Rep. 1501f 3. CEBRA, 2017. 57 p.

6. Development of a generic sample size tool for the importation of small seed lots: An investigation of various options. By: S. Lane, R. Souza-Richards, C. McDonald, and **A. Robinson**. Tech. Rep. 1606a. CEBRA, 2017. 42 p.

7. Risk-mapping import pathways for risk-return opportunities. By: S. Lane, W. Atkinson, C. Aston, and **A. Robinson**. Tech. Rep. 1606c. CEBRA, 2017. 32 p.

8. Data Mining: Final Report. By: S. Clarke, **A. Robinson**, M. Chisholm, and G. Hood. Tech. Rep. 1301a 3. CEBRA, 2017. 156 p.

9. Compliance and risk-based sampling for horticulture exports. By: **A. Robinson**. Tech. Rep. 1501e. CEBRA, 2017. 42 p.

10. National-level farm demographic data for preparedness of highly-infectious livestock disease epidemics. Review of data sources in New Zealand, approach to modelling populations and the effect of population uncertainty on disease modelling. By: M. van Andel, T. Hollings, **A. Robinson**, C. Jewell, M. Burgman, D. Vink, K. Sattler, M. Wada, T. Carpenter, R. Bradhurst, M. G. Garner. Tech. Rep. 1502c. CEBRA, 2016. 324 p.

11. Performance Indicators for Border Compliance. By: M. Hoffmann, **A. Robinson**, and J. Holliday. Tech. Rep. 1501f 2. CEBRA, 2016. 64 p.

12. Ballast Water Risk Assessment. Exploring new methods for estimating risk: Using satellite sea surface temperature data; Incorporating vessel voyage data. By: R. Summerson, S. Zhao, T. Arthur, **A. Robinson**, and R. McCrudden. Tech. Rep. 1501c. CEBRA, 2016. 107 p.

13. Risk-Based Management for Imported Ornamental Fin-fish. By: **A. Robinson** and Y. Hood. Tech. Rep. 1305a 1. CEBRA, 2015. 124 p.

14. Onshore Testing for Verification of Offshore Risk Management: A Case Study in Shrimp. By: **A. Robinson**. Tech. Rep. 1505a. CEBRA, 2015. 8 p.

15. Analytical assessment of endpoint surveys. By: M. Chisholm, M. Hoffmann, A. Küffer, **A. Robinson**, and S. Callis. Tech. Rep. 1301b 1. CEBRA, 2015. 118 p.

16. Reporting performance under a CSP sampling design. M. Hoffmann and **A. Robinson**. Tech. Rep. 1305b 3. CEBRA, 2015. 61 p.

17. Illegal Logging: Report on uptake of analysis and advice. **A. Robinson** and T. McMaugh. Tech. Rep. 1405d. CEBRA, 2015. 11 p.

18. Patterns of failure on a high-risk plant product import pathway — Fresh garlic. By: T. Arthur, S. Zhao, L. Penrose, **A. Robinson**, C. Aston, and B. Woolcott. Tech. Rep. 1305b 2. CEBRA, 2015. 59 p.

19. Development and testing of new Continuous Sampling Plan simulation code. By: T. Arthur, S. Zhao, **A. Robinson**, B. Woolcott, and C. Aston. Tech. Rep. 1305b 1. CEBRA, 2015. 74 p.

20. Updating the Methods for Ballast Water Risk Table Construction. By: T. Arthur, S. Zhao, P. Caley, **A. Robinson**, M. Gregg, and R. McCrudden. Tech. Rep. 1301c. CEBRA, 2015. 170 p.

21. Data Mining: Report on First Cohort of Case Studies. By: S. Clarke, **A. Robinson**, and G. Hood. Tech. Rep. 1301a 2. CEBRA, 2015. 121 p.

22. Sustainable Risk Return Across the Department of Agriculture Biosecurity Business: Cut Flowers. By: **A. Robinson**, B. Woolcott, and J. Sibley. Tech. Rep. 1305b. CEBRA, 2014. 13 p.

23. Data Mining: Sub-Project Data Resources. By: S. Clarke, **A. Robinson**, and G. Hood. Tech. Rep. 1301a 1. CEBRA, 2014. 21 p.

24. Statistical modelling and risk return improvements for the plant quarantine pathway. By: T. Arthur, S. Zhao, **A. Robinson**, B. Woolcott, E. Perotti, and C. Aston. Tech. Rep. 1206f 2. ACERA, 2013. 128 p.

25. A sampling framework and trial for the surveillance program (Ornamental Finfish). By: J. Holliday and **A. Robinson**. Tech. Rep. 1206g 2. ACERA, 2013. 13 p.

26. TRACE: An R-package to trace pest spread via multiple dispersal mechanisms. By: J. Potts, **A. Robinson**, and M. Burgman. Tech. Rep. 1206b 1. ACERA, 2013. 4 p.

27. Determination of effect of audits on pathway contamination rates for medium-risk stockfeed. By: **A. Robinson**, A. Dawes, B. Woolcott, and E. Perotti. Tech. Rep. 1001b 3. ACERA, 2013. 26 p.

28. Sampling interceptions for identification. By **Andrew Robinson**, Glynn Maynard, and Rob Cannon. Tech. Rep. 1101e 1. ACERA, 2013. 29 p.

29. Plant Quarantine Inspection and Auditing across the Biosecurity Continuum. By **Andrew Robinson**, Brendan Woolcott, Peta Holmes, Adam Dawes, Jessica Sibley, Leisa Porter and James Kirkham. Tech. Rep. 1101c 1. ACERA, 2013. 66 p.

30. Ballast Water Risk Table Reconstruction. By: S. Zhao, P. Caley, T. Arthur, **A. Robinson**, and M. Gregg. Tech. Rep. 1104e 1. ACERA, 2013. 20 p.

31. Detectability of arthropods in fresh produce consignments. By: S. Perrone, G. Maynard, B. Crowe, M. Connel, D. Papacek, G. Hepworth, **A. Robinson**, and M. Burgman. Tech. Rep. 1106c 1. ACERA, 2013. 33 p.

32. Adoption of Meaningful Performance Indicators for quarantine inspection performance. By: **A. Robinson**, R. Mudford, K. Quan, P. Sorbello, and M. Chisholm. Tech. Rep. 1101d 1. ACERA, 2013. 46 p.

33. DAFF Biosecurity Quarantine Operations Risk-Based Approach Overview of Case Studies (Study H). By **A. Robinson**, R. Cannon, and S. Goldie. Tech. Rep. 1001h 1. ACERA, 2012. 29 p.

34. Report on strategies for adoption and potential further applications MoniTool - an eradication monitoring tool - Manual. By: S. Hester, E. Sergeant, K. Herbert, and **A. Robinson**. Tech. Rep. 1004a 6. ACERA, 2013. 9 p.

35. Post-border surveillance techniques: review, synthesis and deployment. By: Hester, S; Sergeant, E; Herbert, K; **Robinson, A**. Tech. Rep. 1004a 5. ACERA, 2012. 69 p.

36. Time preference and value of information in the context of estimating consequences. By: Rout, T; Spring, D; Runge, M; **Robinson, A**; Walshe, T. Tech. Rep. 1002a 3. ACERA, 2012. 91 p.

37. AQIS Quarantine Operations Risk Return: Plant Product Pathways Final Report. By **Andrew Robinson**, Jessica Bell, Brendan Woolcott, and Enrico Perotti. Tech. Rep. 1001j 1. ACERA, 2011. 100 p.

38. AQIS Quarantine Operations Risk Return: Performance Indicators Report 1. By **Andrew Robinson**, Rob Cannon, and Robert Mudford. Tech. Rep. 1001i 1. ACERA, 2011. 58 p.

39. AQIS Quarantine Operations Risk Return: Profiling Air Passengers Report 2 By **A. Robinson**, M. Perry, and R. Mudford. Tech. Rep. 1001g 2. ACERA, 2011. 35 p.

40. AQIS Quarantine Operations Risk Return: Profiling Air Passengers Report 1 By **A. Robinson**, M. Chisholm and M. Perry. Tech. Rep. 1001g 1. ACERA, 2010. 37 p.

41. AQIS Import Clearance Risk Return: RD Report 3. By **A. Robinson**, R. Karri, F. Clarke, and M. Scott. Tech. Rep. 1001f 3. ACERA, 2010. 27 p. (2 others in series not listed here)

42. AQIS Import Clearance Risk Return: ULD Report 3. By **A. Robinson**, R. Karri, F. Clarke, M. Theakston, and M. Scott. Tech. Rep. 1001e 3. ACERA, 2010. 29 p. (2 others in series not listed here)

43. AQIS Import Clearance Risk Return: Seaports Report 3. By **A. Robinson**, S. Goldie, S. Gillow, and S. Tognolini. Tech. Rep. 1001d 3. ACERA, 2010. 20 p. (2 others in series not listed here)

44. AQIS Import Clearance Risk Return: Rural Destination Inspection Report 2. By **A. Robinson**, L. Cayzer, R. Cannon, and R. Langlands. Tech. Rep. 1001b 2. ACERA, 2009. 15 p. (1 other in series not listed here)

45. AQIS Import Clearance Risk Return: External Container Inspection Report 3. By **A. Robinson**, G. Hood, L. Cayzer, and M. Scott. Tech. Rep. 1001a 3. ACERA, 2010. 16 p. (2 others in series not listed here)

46. AQIS Import Clearance Risk Framework. By **A. Robinson**, M. Burgman, R. Langlands, R. Cannon, and F. Clarke. Tech. Rep. 0804a. ACERA, 2009. 40 p.

47. AQIS Import Clearance Data Framework. By **A. Robinson**, M. Burgman, W. Atkinson, R. Cannon, C. Miller, and H. Immonen. Tech. Rep. 0804. ACERA, 2008. 75 p.

Other

1. Robinson, A.P., and Lane, S. Assessment and Analysis of Incident Data Held by Energy Safe Victoria. 48 p. 2017
2. Robinson, A.P. Immune systems: statistical model. Consulting report. 52 pp 2008.
3. Robinson, A.P. Evaluation of the performance of the spatial version of the 3-PG model, customized for Aracruz Celulose. Consultancy Report for Aracruz Celulose, 2005.
4. Robinson, A.P. Report for 10-year Critical Period data from Ontario. Report for NE Forest Coop, 2005.
5. Robinson, A.P. Report for analysis for spruce-fir regeneration in even-aged commercially thinned stands. Consulting report for NE Forest Coop, 2005.

Grants and Contracts

Category 1 — $18.8 million

1/15 to 1/19: ARC Linkage Grant: "Silviculture for Leadbeater's Possum habitat development", LP140100580, P. Baker, C. Nitschke, A. Robinson, J. Todd, L. Lumsden, D. Sedunary; Total Budget: $315,000

7/13 to 6/21: Centre of Excellence for Biosecurity Risk Analysis (DAWR/MPI) M. Burgman, A. Robinson, T. Kompas, S. Hester. Total incoming: $17,068,000.

1/11 to 12/13: ARC Discovery Grant: "New models for effective surveillance", DP110103159, A. Robinson, M. Burgman, and C. Thompson, Total budget: $255,000

1/09 to 12/13: ARC Discovery Grant: "Inverse and related problems in statistics", DP0986404, P. Hall, A. Delaigle, and A. Robinson, Total budget: $987,440.

1/06 to 12/08: ARC Discovery Grant: "Statistical Analysis of Some Partially Observed Processes Arising in Ecological Research", DP0772068, R. Huggins, G. Qian, A. Robinson, Total budget: $180,000.

Category 2–4 — $362,500

2018–19 "B3 #18 Tourism, biosecurity and pathways into New Zealand: identifying risk and mitigation strategies" AgResearch Limited, New Zealand ($40,000)

2018–19 "Aquatic Health Research Programme" Cawthron Institute Trust Board ($57,222)

2018–19 "Alternative approaches to developing assurance about the regulatory compliance of consignments of seeds" Department of Agriculture and Water Resources ($100,000)

2018–19 "Sampling for Proof of Freedom Guidelines" Department of Agriculture and Water Resources ($50,000)

2018 "Paul Grimes Review - Report on electricity and gas network safety performance data integrity and analysis" DELWP ($29,763)

2017 "Examination of existing sampling methodology" Department of Immigration and Border Protection ($90,668)

2017 "Pooling imported seed testing data for greater power." Department of Agriculture and Water Resources ($45,500)

2016 "Enhanced Sampling Program for the mail pathway" Department of Immigration and Border Protection ($40,000)

Internal— $39,000

1/06 to 12/06: University of Melbourne SciMET ($ 9,000)
"L: A kinder, gentler R."

1/06 to 12/06: University of Melbourne ECRG ($ 30,000)
"Critical Period Analysis using Segmented Regression and Maximum Likelihood."

USA — $1.4 million

2005 USA Congressional Appropriation. ($ 272,300)
"University of Idaho: Collaborative Working Forests." (T. Link, J. Braatne, P. Gessler, H. Han, K. Kavanagh, J. Marshall, and A. Robinson)

2004 to 2005: USDA Forest Service, JRVA ($ 25,000)
"Designing sub-samples for height imputation."

2004 to 2005: University of Idaho Macintyre–Stennis Funds ($ 50,000)
"Developing, improving, and linking tree-level models of crown dynamics for the projection of stand-level hydrological processes." (A. Robinson, T. Link, and A. Abbott)

2004 USA Congressional Appropriation. ($ 243,000)
"University of Idaho: Collaborative Working Forests." (T. Link, J. Braatne, P. Gessler, H. Han, K. Kavanagh, J. Marshall, and A. Robinson)

2003 USA Congressional Appropriation. ($ 346,000)
"Managed Forests as Productive Systems: A Research and Education Initiative." (T. Link, P. Gessler, H. Han, K. Kavanagh, J. Marshall, and A. Robinson)

2003 to 2004: USDA Forest Service, JRVA ($ 25,000)
"Crown Modelling Development."

2003 to 2004: Weyerhaeuser Corporation ($ 80,000)
"Development of forest growth models for riparian areas."

2000 to 2003: USDA Forest Service, JRVA ($ 80,000)
"Development of regeneration models for stand development."

2000 to 2003: University of Idaho Macintyre–Stennis Funds ($ 150,000)
"Parameterizing physiological forest models in Idaho." (A. Robinson, J. Marshall, and P. Gessler)

2000: USDA Forest Service, JRVA ($ 11,000)
"Constructing process-based models." (A. Robinson and J. Marshall)

1999 to 2002: USDA Forest Service, JRVA ($ 80,000)
"Models for forest landscape dynamics." (R. Monserud and A. Robinson)

1999 to 2003: USDA Forest Service, JRVA ($ 45,000)
"Incorporating Soil Parent Material and Spatial Information into the Prognosis Model: A Regional Modelling Project" (J. Moore, W. Wykoff, and A. Robinson)

1999 to 2001: Colonvade Corporation ($ 25,000)
"Comparing loblolly taper between Uruguay and the south-eastern United States." (L. Leites and A. Robinson)

1/97 to 9/98: University of Minnesota Doctoral Dissertation Fellowship.

Consulting Projects

11/13 to 1/14 Forestry Tasmania: "Technical Report of Forestry Tasmania's Proposed Specialty Timber Resource Assessment and Projection."

3/13 to 6/13 Foursight Associates Pty Ltd and DEPI: "Review of the Proposed Approach to the Development of a new National Fire Danger Rating System."

1/13 to 6/13 Victorian Department of Environment and Primary Industries: "Analysis of Statewide Forest Inventory (SOP 32)."

2/12 Hancock Victorian Plantations: "Analysis of yield data for accurate reporting".

11/11 to 12/12 Tasmanian Forests Intergovernmental Agreement Signatories Independent Verification Group: "Review of Tasmanian Forest Estate Wood Supply Scenarios."

10/11 to 11/11 NSW Office of Environment and Heritage, Parks Victoria and the Victorian Department of Sustainability and Environment: "Review of Ecological Thinning Study Design."

4/10 to 9/10 Victorian Department of Sustainability and Environment: "Review and comparison of tree- and stand-based forest growth models for potential integration into EnSym."

9/08 to 1/09 Australian Center for Excellence in Risk Analysis: "AQIS Import Clearance Risk Framework." ACERA Projects 0804 and 0804a.

7/07 to 12/07 Australian Center for Excellence in Risk Analysis: "Evaluating vegetation condition measures for cost-effective biodiversity investment planning", ACERA Project 0706.

3/08 to 7/08 GTG: "Immune Systems – Statistical Model."

10/07 to 10/08 Australian Center for Excellence in Risk Analysis: "AQIS Import Clearance Data Framework."

9/04 to 7/05 Aracruz Celulose: "Evaluation of the performance of the spatial version of the 3-PG model, customized for Aracruz Celulose."

4/05 to 8/05 CFRU, University of Maine: "Analysis of forest regeneration designed experiments."

11/04 to 6/05 CFRU, University of Maine: "Analysis of forest fertilization designed experiments."

7/03 to 8/03 Potlatch Corporation: "Analysis of scaled sampling data."

Awards and Honours

12/2015: The University of Melbourne Award for Excellence in Engagement: Public Value.

8/2014: Honorable Mention in the SPES Outstanding Presentation Awards for "ML vs. MRR: Weibull Parameter Estimation for Making Decisions," presented at the 2014 Joint Statistical Meetings.

12/2004 Student Adviser Award, College of Natural Resources, University of Idaho.

7/2001: University of British Columbia Peter Wall Junior Scholar Fellowship, 2001.

Committees

2016–18 Australian Department of Agriculture and Water Resources Plant Health Surveillance Consultative Committee

2015–16 Poultry Cooperative Research Centre Avian Influenza Risk Mitigation Steering Committee

Teaching Experience

At University of Melbourne:

1. 600–615 (now MAST90044): *Thinking and Reasoning from Data* (Toolkit Masters of Science subject, 2 contact hrs. per week), in 2009 and 2014.
2. 620–160: *Experimental Design and Data Analysis* (1st yr. undergraduate subject, 3 contact hrs. per week), in 2005, 2006, and 2007.
3. 620–298: *Data Analysis II* (Second-year undergraduate subject, 3 contact hrs. per week), in 2009.
4. 620–371: *Linear Models* (Final-year undergraduate subject, 4 contact hrs. per week), in 2008.
5. 620–372: *Applied Statistical Inference* (Final-year undergraduate subject, 4 contact hrs. per week), in 2006 and 2007.
6. 620–471: *Analysis of Hierarchical Data* (Honours subject, 2 contact hrs. per week), in 2006–2008.
7. 800–101 (now UNIB10006): *Critical Thinking with Data* (University Breadth Subject, 4 contact hrs. per week), in 2008 and 2013.
8. Tutoring in Statistics, 1987.

At University of Idaho:

1. STAT/FOR 594: *Analysis of Correlated Data* (Graduate class, 3 cr. Fall 2003–2004, Spring 2005, 20 students)
2. FOR 504: *Special Topics: Analysis of Spatial Data* (Graduate class, 3 cr. Fall 2004, Spring 2005, 5–20 students)
3. FOR 504: *Special Topics: Forest Biometrics* (Graduate class, 3 cr. Spring 2000, 5 students)
4. FOR 501: *Seminar* (Graduate class, 1 cr. Fall 2001, 8 students)
5. FOR 474: *Forest Inventory* (Undergraduate class, 3 cr. Fall 1999–2003, 20–30 students)
6. FOR 394: *Quantitative Resource Analysis* (Undergraduate class, 3 cr. Spring 2001-2002, 20–30 students)
7. FOR 374: *Forest Mensuration* (Undergraduate class, 3 cr. Fall 1999, 25 students)

8. FOR 294: *Quantitative Resource Analysis* (Undergraduate class, 3 cr. Spring 1999 – 2000, 20–30 students)
9. FOR 274: *Forest Measurements* (Undergraduate class, 1 cr. Fall 1999 – 2002, 3 cr. 2003–2005, 15–30 students)

At University of Minnesota:

1. NRES 5210: *Survey, measurement and modelling methods for natural resource analysis, I.* (4 cr. 1997, 1998, 80-100 students), co-instruction
2. FR 5222: *Forest resource inventory* (2 cr. 1996), co-instruction
3. FR 3201: *Field forest measurements* (1 cr. 1995), co-instruction
4. NRES 5210: *Survey, measurement and modelling methods* (4 cr. 1995, 1996), teaching assistant

At Australian National University:

1. FSTY2101: *Forest mensuration* (4 cr. 1993)
2. FSTY3112: *Field studies 2a* (1 cr. 1994)
3. FSTY1101: *Forest biometrics* (4 cr. 1993)
4. FSTY3112: *Field studies 2a* (1 cr. 1993), co instruction
5. STAT1003: *Statistical Techniques I* (4 cr. 1994), tutoring
6. FSTY1101: *Forest biometrics* (4 cr. 1991 – 1993), co-instruction
7. FSTY3112: *Field studies 2a* (1 cr. 1992), co-instruction

Past and Present Postgraduate Supervision:

1. *Thiripura Sivapalan*, PhD student in Applied Statistics, University of Melbourne. (*co-advising with Nicholas Geard and Patricia Campbell.*)
2. *Gayan Dharmarathne*, PhD student in Applied Statistics, University of Melbourne. (*co-advising with Anca Hanea.*)
3. *Nayomi Attanyake*, PhD student in Applied Statistics, University of Melbourne. (*co-advising with Nicholas Armstrong and Owen Jones.*)
4. *Indirati Bisono*, PhD student in Applied Statistics, University of Melbourne. Graduated in 2016. Thesis topic: " On modelling extreme values" (*co-advised with Aloke Phatak, Davide Ferrari, and Ray Watson.*)
5. *Natalie Karavarsamis*, PhD in Applied Statistics, University of Melbourne. Graduated in 2014. Thesis topic: "Methods for estimating occupancy". (*co-advised with Graham Hepworth and Richard Huggins.*)
6. *David Lazaridis*, PhD in Applied Statistics, University of Melbourne. Graduated in 2014. Thesis topic: "Mixed–Effects Models with Penalized Fixed Effects". (*co-advised with Owen Jones.*)
7. *Stephen Lane*, PhD in Applied Statistics, University of Melbourne. Graduated in 2012. Thesis topic: "Topics in Functional Data Analysis". (*co-advised with Richard Huggins and Tom Baker.*)
8. *Laura Leites*, PhD in Forestry, University of Idaho. Graduated in 2010. (*co-advised with John Marshall.*)
9. *Tobah Gass*, MS in Forestry, University of Idaho. Graduated in 2006. Thesis topic: "A test of time: burn patterns, stand structure, and composition as indicators of forest age in a subalpine wilderness".
10. *Huei-Jin Wang*, MS in Forestry, University of Idaho. Graduated in 2006. Thesis topic: "Modeling branch mortality within the crown as related to crown competition between neighboring trees for three northern Idaho coniferous species in heterogeneous stands".
11. *Christian Salas*, MS in Statistics, University of Idaho. Graduated in 2006. Thesis topic: "Modelling effects of overstory density and competing vegetation on tree height growth".
12. *Remko Duursma*, PhD in Forestry, University of Idaho. Graduated in 2004. Thesis topic: "A simple process-based model of forest growth, and a test for the Priest River Experimental Forest". (*co-advised with John Marshall*).
13. *Robert Keefe*, MS in Forestry, University of Idaho. Graduated in 2004. Thesis topic: "Two-stage and zero-inflated modelling of forest regeneration on the Pacific Northwest coast".
14. *Robert Froese*, PhD in Forestry, University of Idaho. Graduated in 2003. Thesis topic: "Re-engineering the Prognosis basal area increment model for the inland empire".

15. *Laura Leites*, MS in Forestry, University of Idaho. Graduated in 2001. Thesis topic: "Relationship between crown dimensions and stem form, and evaluation of taper equations for loblolly pine (*Pinus taeda*) plantations in Uruguay".

Honours Student Supervision

1. Hannah Capes, 2008 "The allometric quarter-power scaling model and its applicability to grand fir and eucalyptus trees."
2. David Lazaridis, 2008 "L^q-norm shrinkage regression and application."
3. Stephen Lane, 2007, "Generalized estimating equations for pedigree analysis."
4. Martin Shield, 2006, "Critical period analysis."

Administration / Service

At University of Melbourne:

- Managing Director, CEBRA, 2017–Present
- Deputy Director, ACERA / CEBRA, 2011–2016
- Member, Research and Industry Committee, School of BioSciences, 2018–Present.
- Member, Publicity and Recruitment Committee, 2005–2009.
- Member, Information Technology Committee, 2005–11. (Deputy chair of committee 2006–2009)
- Departmental Representative to Arts Faculty Board, 2006–2008.

Computer and computing experience

- Unix (FreeBSD and Linux), MAC OS, PC systems.
- R statistical environment.
- LaTeX
- emacs
- C, C++, FORTRAN 77, Splus, and some SAS.
- Common word processing and spreadsheet software.

Other Professional Activities

- Editor in Chief, "Topics in Statistical Ecology", Springer Book Series, 2011–present.
- Member, Scientific Advisory Committee, Australian Center for Excellence in Risk Analysis, 2009–2012.
- Associate Editor, Canadian Journal of Forest Research, 2004–2008.
- Member, Editorial Review Board, Tree Physiology, 2004.
- Reviewer for the following journals: Annals of Forest Science, Canadian Journal of Forest Research, The Britsh Journal of Mathematical and Statistical Psychology, Conservation Biology, Ecography, Ecological Modelling, Environmental and Ecological Statistics, Environmental Modelling and Software, Forest and Landscape Research, Forest Ecology and Management, Forest Science, Journal of Agricultural, Biological and Environmental Statistics, Journal of Forestry, Risk Analysis, Silva Fennica, The Journal of Tropical Forest Science, The Statistician, Tree Physiology.
- Presenter, 2006 MUMS Trivia Night, and 2005 and 2007 MUMS Maths Olympics.
- Guest, *Einstein–a–Go–Go*, 3RRR Radio Station, 2006.
- Invited appearance, *The Footy Show*, Channel 9, 2006.