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## Ranked Set Sampling

(78 entries)

1. McIntyre, G.A. 1951. A Method for unbiased selective sampling, using ranked sets. *Australia Journal of Agric. Res.* (3): 385 – 390
2. Halls, L.K. and Dell, T.R. 1966. Trial of ranked-set sampling for forage yields. *Forest Science* 12(1): 22 - 26
3. Takahasi, K. and Wakimoto, K. 1968. On unbiased estimates of the population mean based on the sample stratified by means of ordering. *Annals of the Institute of Statistical Mathematics* 20: 1 – 31
4. Dell, T.R. 1969. The theory and some applications of ranked set sampling. A dissertation submitted to Graduate Faculty of the University of Georgia in Partial fulfillment of the requirements for the degree of Doctor of Philosophy. 69 p
5. Dell, T.R. 1972. Ranked set sampling theory with order statistics background. *Biometrics* 28: 545 - 555
6. Yanagawa, T. and Shirahata, S. 1976. Ranked set sampling theory with selective probability matrix. *Austral. J. Statist.* 18(1): 45 - 52
7. Martin, W.L., Sharik, T.L., Oderwald, R.G. and Smith, D. 1980. Evaluation of ranked set sampling for estimating shrub Phytomass in Appalachian Oak Forests. *Publication No. FWS – 4 – 80*, School of Forestry and Wildlife Resources, Virginia Polytechnic Institute and State University. 9 p
8. Stokes, S.L. 1980. Estimation of variance using judgment ordered ranked set samples. *Biometrics* 36: 35 - 42
9. Yanagawa, T. and Chen, S. 1980. The MG – Procedure in ranked set sampling. *Journal of Statistical Planning and Inference* 4: 33 – 44
10. Shirahata, S. 1982. An extension of the ranked set sampling theory. *Journal of Statistical Planning and Inference* 6: 65 - 72
11. Cobby, J.M., Ridout, M.S., Bassett, P.J. and Large, R.V. 1985. An investigation into the use of ranked set sampling on grass and grass-clover sward. *Grass and Forage Science* 40: 257 - 263
12. Ridout, M.S. and Cobby, J.M. 1987. Ranked set sampling with non-random selection of sets and errors in ranking. *Appl. Statist.* 36(2): 145 - 152

13. Muttlak, H.A. 1988. Some aspects of ranked set sampling with size biased probability of selection. A Dissertation submitted to the Department of Statistics and Graduate School of the University of Wyoming in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Statistics. (Abstract)
14. Stokes, S.L. and Sager, T.W. 1988. Characterization of a ranked-set sample with application to estimating distribution functions. *Journal of the American Statistical Association* 83(402): 374 - 381
15. Muttlak, H.A. and McDonald, L.L. 1990. Ranked set sampling with size-biased probability of selection. *Biometrics*: 435 – 445
16. Bohn, L.L. and Wolfe, D.A. 1992. Nonparametric two-sample procedures for ranked-set samples data. *Journal of the American Statistical Association* 87(418): 552 – 561
17. Muttlak, H.A. and McDonald, L.L. 1992. Ranked set sampling and the line intercept method: A more efficient procedure. *Biometrics* 34(3): 329 - 346
18. Patil, G.P., Sinha, A.K., and Gore, S.D. 1992. Environmental sampling and statistical modeling with examples. *Technical Report Number 92-0803*. Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Penn State University.
19. Patil, G.P., Sinha, A.K., and Taillie, C. 1992. Ranked set sampling from a finite population in the presence of a trend on a site. *Technical Report Number 91-1204*. Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Penn State University. 37 p
20. Patil, G.P., Sinha, A.K., and Taillie, C. 1992. Finite population corrections for ranked set sampling. *Technical Report Number 92-1004*. Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Penn State University. 18 p
21. Patil, G.P., Sinha, A.K., and Taillie, C. 1992. Ranked set sampling: An annotated bibliography. *Technical Report Number 91-1201*. Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Penn State University. 37 p
22. Patil, G.P., Sinha, A.K., and Taillie, C. 1992. Observational economy of ranked set sampling: comparison with the regression estimator. *Technical Report Number 92-1009*. Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Penn State University.

23. Patil, G.P. and Taillie, C. 1992. Environmental sampling, observational economy, and statistical inference with emphasis on ranked set sampling, encounter sampling, and composite sampling. *Technical Report Number 93-0401*. Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Penn State University.
24. Patil, G.P., Sinha, A.K., and Taillie, C. 1993. Ranked set sampling for multiple characteristics. *Technical Report Number 92-1011*. Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Penn State University.
25. Patil, G.P., Sinha, A.K., and Taillie, C. 1993. A general framework for ranked set sampling with application to encounter sampling and weighted distributions. *Technical Report Number 92-1103*. Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Penn State University.
26. Patil, G.P., Sinha, A.K., and Taillie, C. 1993. Relative precision of ranked set sampling for some statistical distributions useful in ecological work. *Technical Report Number 91-1203*. Center for Statistical Ecology and Environmental Statistics, Department of Statistics, Penn State University.
27. Patil, G.P., Sinha, A.K., and Taillie, C. 1993. Relative precision of ranked set sampling: A comparison with the regression estimator. *Environmetrics* 4(4): 399 - 412
28. Patil, G.P., Sinha, A.K., and Taillie, C. 1994. Ranked set sampling for multiple characteristics. *International Journal of Ecology and Environmental Sciences* 20: 357 - 373
29. Bohn, L.L. 1994. A Review of nonparametric ranked-set sampling methodology. Department of Statistics, Griffin-Floyd Hall, Florida. 8p
30. Kaur, A., Patil, G.P., Sinha, A.K. and Taillie, C. 1995. Ranked set sampling: an annotated bibliography. *Environmental and Ecological Statistical* 2(25): 25 - 54
31. Bhoj, D.S. and Ahsanullah, M. 1996. Estimation of parameters of the generalized geometric distribution using ranked set sampling. *Biometrics* 52: 685 - 694
32. Kaur, A., Patil, G.P., Shirk, S.J. and Taillie, C. 1996. Environmental sampling with a concomitant variable: a comparison between ranked set sampling and stratified simple random sampling. *Journal of Applied Statistics* 23 (2&3): 231 - 255
33. Muttlak, H.A. 1996. Estimation of parameters for one-way layout with rank set sampling. *Biom. J.* 38(4): 507 - 515

34. Bhoj, D.S. 1997. Estimation of parameters using modified ranked set sampling. *Applied Statistical Science II*: 143 - 163
35. Kaur, A., Patil, G.P., and Taillie, C. 1997. Unequal allocation models for ranked set sampling with Skew distributions. *Biometrics* 53: 123 - 130
36. Nussbaum, B.D. and Sinha, B.K. 1997. Cost effective gasoline sampling using ranked set sampling. In a Proceedings of the Section on Statistics and the Environment. American Statistical Association.
37. Yu, P.L.H. and Lam, K. 1997. Regression estimator in ranked set sampling. *Biometrics* 53: 1070 – 1080
38. Barabesi, L. 1998. The computation of the distribution of the sign test statistic for ranked-set sampling. *Commun. Statist. Simula.* 27(3): 833 - 842
39. Wolfe, D. 1998. Optimal judgment sample sizes for distribution-free ranked-set sampling procedures. Effects of imperfect judgment rankings and extensions of K-sample and correlation problem. Proposal Reviewed by Prof. Tim Gregoire.
40. Mode, N.A., Conquest, L.L. and Marker, D.A. 1999. Ranked set sampling for ecological research: accounting for the total costs of sampling. *Environmetrics* 10: 179 - 194
41. Ross, N.P. and Stokes, L. 1999. Special issue on statistical design and analysis with ranked set samples. *Environmental and Ecological Statistics* 6: 5 – 9
42. Al-Saleh, M.F. and Samawi, H.M. 2000. On the efficiency of monte carlo methods using steady state ranked simulated samples. *Commun. Statist. – Simula.*, 29(3): 941 - 954
43. Ozturk, O. and Wolfe, D.A. 2000. Optimal allocation procedure in ranked set sampling for unimodal and multi-modal distributions. *Environmental and Ecological Statistics* 7: 343 - 356
44. Ozturk, O. and Wolfe, D.A. 2000. Optimal allocation procedure in ranked set two-sample median test. *Nonparametric Statistics* 13: 57 - 76
45. Ozturk, O. and Wolfe, D.A. 2000. An improved ranked set two-sample Mann-Whitney-Wilcoxon test. *The Canadian Journal of Statistics* 28(1): 123 - 135
46. Barabesi, L. 2001. The unbalanced ranked-set sample sign test. *Nonparametric Statistics* 13: 279 – 289

47. Bhoj, D.S. 2001. Ranked set sampling with unequal samples. *Biometrics* 57: 957 – 962
48. Barabesi, L. 2001. A design-based approach to the estimation of plant density using point-to-plant sampling. *Journal of Agricultural, Biological, and Environmental Statistics* 6(1): 89 – 98
49. Barabesi, L. and El-Sharaawi, A. 2001. The efficiency of ranked set sampling for parameter estimation. *Statistics and Probability Letters* 53: 189 - 199
50. Ozturk, O. and Wolfe, D.A. 2001. A new ranked set sampling protocol for the signed rank test. *Journal of Statistical Planning and Inference* 96: 351 – 370
51. Abu-Dayyeh, W.A., Samawi, H.M. and Bani-Hani, L.A. 2002. On distribution function estimation using double ranked set samples with application. *Journal of Modern Applied Statistical Methods* 1(2): 443 - 451
52. Al-Saleh, M. F. and Zheng, G. 2002. Estimation of bivariate characteristics using ranked set sampling. *Aust. N. Z. J. Stat.* 44(2): 221 – 232
53. Al-Saleh, M.F. and Al-Omari, A.I. 2002. Multistage ranked set sampling. *Journal of Statistical Planning and Inference* 102: 273 – 286
54. Barabesi, L. and Pisani, C. 2002. Ranked set sampling for replicated sampling designs. *Biometrics* 58(3): 86 – 92
55. Barabesi, L. and Fattorini, L. 2002. Kernel estimators of probability density functions by ranked-set sampling. *Commun. Statist. – Theory Meth.* 31(4): 597 – 610
56. Lam, K.F., Yu, L.H.P. and Lee, C.F. 2002. Kernel method for the estimation of the distribution function and the mean with auxiliary information in ranked set sampling. *Environmetrics* 13: 397 – 406
57. Mode, N.A., Conquest, L.L. and Marker, D.A. 2002. Incorporating prior knowledge in environmental sampling: ranked set sampling and other double sampling procedures. *Environmetrics* 13: 513 - 521
58. MacEachern, S.N., Ozturk, O., Wolfe, D.A. and Stark, G.V. 2002. A new ranked set sample estimator of variance. *J. R. Statist. Soc. B.* 64(2): 177 – 188
59. Nahhas, R.W., Wolfe, D.A. and Chen, H. 2002. Ranked set sampling: cost and optimal set size. *Biometrics* 58: 964 – 971

60. Ozturk, O. 2002. Ranked set sample inference under a symmetry restriction. *Journal of Statistical Planning and Inference* 102: 317 - 36
61. Samawi, H.M. and Tawalbeh, E.M. 2002. Double median ranked set sample: comparing to other double ranked samples for mean and ratio estimators. *Journal of Modern Applied Statistical Methods* 1(2): 428 - 442
62. Yu, P.L.H. and Tam, C.Y.C. 2002. Ranked set sampling in the presence of censored data. *Environmetrics* 13: 379 - 396
63. Muttlak, H.A. and Al-Sabah, W.S. 2003. Statistical quality control based on ranked set sampling. *Journal of Applied Statistics* 30(9): 1055 - 1078
64. Barabesi, L. and Pisani, C. 2004. Steady-state ranked set sampling for replicated environmental sampling designs. *Environmetrics* 15: 45 -56
65. Barnett, V. 2004. Environmental statistics methods and applications. John Wiley & Sons, Ltd.
66. Chen, Z. and Wang, Y. 2004. Efficient regression analysis with ranked-set sampling. *Biometrics* 60: 997 - 1004
67. Ghosn, K. and Tiwari, R.C. 2004. Bayesian density estimation using ranked set samples. *Environmetrics* 15: 711 - 728
68. Kowalczyk, B. 2004. Ranked set sampling and its applications in finite population studies. *Statistics in Transition* 6(7): 1031 – 1046
69. Samawi, H.M. and Saeid, L.J. 2004. Stratified extreme ranked set samples with application to ratio estimators. *Journal of Modern Applied Statistical Methods* 3(1): 117 - 133
70. Wang, Y., Chen, Z. and Liu, J. 2004. General ranked set sampling with cost consideration. *Biometrics* 60: 556 – 561
71. Buchanan, R.A., Conquest, L.L. and Courbois, J. 2005. A cost analysis of ranked set sampling to estimate a population mean. *Environmetrics* 16: 235 – 256
72. Balakrishnan, N. 2005. Ordered ranked set samples and applications to inference. *Elsevier Science*
73. Balakrishnan, N. 2006. Confidence intervals for quantiles and tolerance intervals based on ordered ranked set samples. *AISM* 58: 757 - 777
74. Chen, H., Stasny, E.A., and Wolfe, D.A. 2006. Unbalanced ranked set sampling for estimating a population proportion. *Biometrics* 62: 150 – 158

75. Sengupta, S. and Mukhuti, S. 2006. Unbiased variance estimation in a simple exponential population using ranked set samples. *Journal of Statistical Planning and Inference* 136: 1526 – 1553
76. Balakrishnan, N. 2007. Some simple nonparametric methods to test for perfect ranking in ranked set sampling.
77. Chacko, M. and Thomas, P. 2007. Estimation of a parameter of bivariate Pareto distribution by ranked set sampling. *Journal of Applied Statistics* 34(6): 703 - 714
78. Sengupta, S. and Mukhuti, S. 2008. Unbiased estimation of  $\Pr(X>Y)$  using ranked set sample data. *Statistics* 42(3): 223 - 230