

Morgan, Byron J. T.

The cubic logistic model for quantal assay data. (English) Zbl 0591.62092
J. R. Stat. Soc., Ser. C 34, 105-113 (1985).

Summary: Three- and four-parameter models have recently been proposed for quantal assay data. These models are useful for judging whether the fit of simpler standard models, such as the logit, can be improved; better fits could result in better determination of extreme dose levels. However, a disadvantage of these new models is that they are often difficult to fit to data, and so are unlikely to be widely used. One of these models is well-approximated by a much simpler model, for a wide variety of cases, and maximum-likelihood estimates of parameters for this model can be obtained readily by the method-of-scoring.

MSC:

62P10 Applications of statistics to biology and medical sciences; meta analysis Cited in 5 Documents

Keywords:

GLIM; quantit; cubic logistic model; quantal assay data; maximum-likelihood estimates; method-of-scoring

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