

**Stephen C. Newbold and Juha V. Siikamäki. 2009. Prioritizing conservation activities using reserve site selection methods and population viability analysis. *Ecological Applications* 19:1774–1790.**

**Appendix C. Ricker results: table with parameter estimates and baseline persistence probabilities based on a Ricker stock–recruitment model, analagous to Table 1 based on a Beverton-Holt stock–recruitment model.**

**TABLE C1.** Parameter estimates and initial stock persistence probabilities based on a stochastic Ricker stock–recruitment model.  $\alpha$  is the recruitment rate at low abundance (per generation),  $\beta$  is the habitat capacity parameter, and  $\sigma$  is the standard deviation of environmental variability affecting the survival of recruits. The top rows show the maximum likelihood estimates of the parameters for each stock, with standard errors in square brackets. Stock persistence probabilities for 25, 50, and 100 years— $p_{25}$ ,  $p_{50}$ , and  $p_{100}$ —were estimated by Monte Carlo simulation using 5000 trials, each starting from an abundance equal to the average abundance over the record of returns for each stock.

	<b>Methow</b>	<b>Entiat</b>	<b>Wenatchee</b>
<i>Estimation results based on a Ricker stock–recruitment model:</i>			
$\alpha$	1.196 [ 0.3031 ]	1.146 [ 0.2335 ]	0.8817 [ 0.2449 ]
$\beta$	1.823E-4 [ 9.327E-5 ]	3.709E-4 [ 1.905E-4 ]	4.252E-5 [ 5.803E-5 ]
$\sigma$	0.8607 [ 0.1093 ]	0.7854 [ 0.0913 ]	1.055 [ 0.1227 ]

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*Baseline PVA results accounting for environmental variability only:*

$p_{25}$	0.821	0.938	0.512
$p_{50}$	0.612	0.883	0.257
$p_{100}$	0.344	0.808	0.073

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