



Title	Estimation of Gillnet Selectivity Curve by Maximum
Author(s)	Fujimori, Yasuzumi; Tokai, Tadashi
Citation	Fisheries Science, 67(4), 644-654 <a href="https://doi.org/10.1046/j.1444-2906.2001.00301.x">https://doi.org/10.1046/j.1444-2906.2001.00301.x</a>
Issue Date	2001-08
Doc URL	<a href="http://hdl.handle.net/2115/622">http://hdl.handle.net/2115/622</a>
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Type	article (author version)
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Table 1 Frequency distribution of fork length of pink salmon caught (Ishida<sup>6</sup>)

Length class, $l_j$ (cm)	Mesh size, $m_i$ (cm)						Total
	7.6	9.6	10.6	12.1	12.7	13.6	
41.5	15	60	57	18	0	5	155
42.5	21	103	160	42	1	4	331
43.5	23	100	190	72	1	9	395
44.5	10	84	198	135	2	11	440
45.5	7	40	135	158	2	9	351
46.5	5	29	2	133	6	7	182
47.5	0	18	11	100	2	13	144
Number of net used, $x_i$	70	98	136	331	71	209	915
Relative catch effort ( $x_i / \sum_i x_i$ )	0.077	0.107	0.149	0.362	0.078	0.228	

Table 2 The parameters of master curve of selectivity and the values of model deviance

Model	Parameters										MLL	d.f.	Model deviance	
	$R_0(R_a, R_b)^2$	$\sigma$	$\eta^1, \omega^2$	$\delta^2$	$p_1$	$p_2$	$p_3$	$p_4$	$p_5$	$p_6$				
Normal	$p_i$ estimated	4.1108	0.4612	-	-	0.9161	0.0226	0.0228	0.0294	0.0010	0.0081	-2538.6	29	428.0
	$p_i$ fixed	4.5487	0.5478	-	-	0.0765	0.1071	0.1486	0.3617	0.0776	0.2284	-2647.2	34	617.7
Lognormal	$p_i$ estimated	4.3378	0.1026	-	-	0.3183	0.0561	0.0935	0.2745	0.0132	0.2444	-2505.2	29	337.8
	$p_i$ fixed	4.4310	0.1218	-	-	0.0765	0.1071	0.1486	0.3617	0.0776	0.2284	-2586.0	34	528.9
Skew-normal	$p_i$ estimated	4.2290	0.4375	1.1401	-	0.7385	0.0508	0.0571	0.0984	0.0038	0.0514	-2512.9	28	354.7
	$p_i$ fixed <sup>3</sup>	-	-	-	-	0.0765	0.1071	0.1486	0.3617	0.0776	0.2284	-	33	-
Bi-normal	$p_i$ estimated	4.0638	0.2141											
		4.7719	0.6397	0.2662	1.1370	0.1222	0.1380	0.0913	0.2742	0.0181	0.3562	-2427.0	25	115.6
	$p_i$ fixed	4.0575	0.2111											
		4.8084	0.6331	0.6744	1.3393	0.0765	0.1071	0.1486	0.3617	0.0776	0.2284	-2470.6	30	228.9

<sup>1</sup> The parameter of skew-normal model.

<sup>2</sup> The parameter of bi-normal model.

<sup>3</sup> Parameters were not converged.

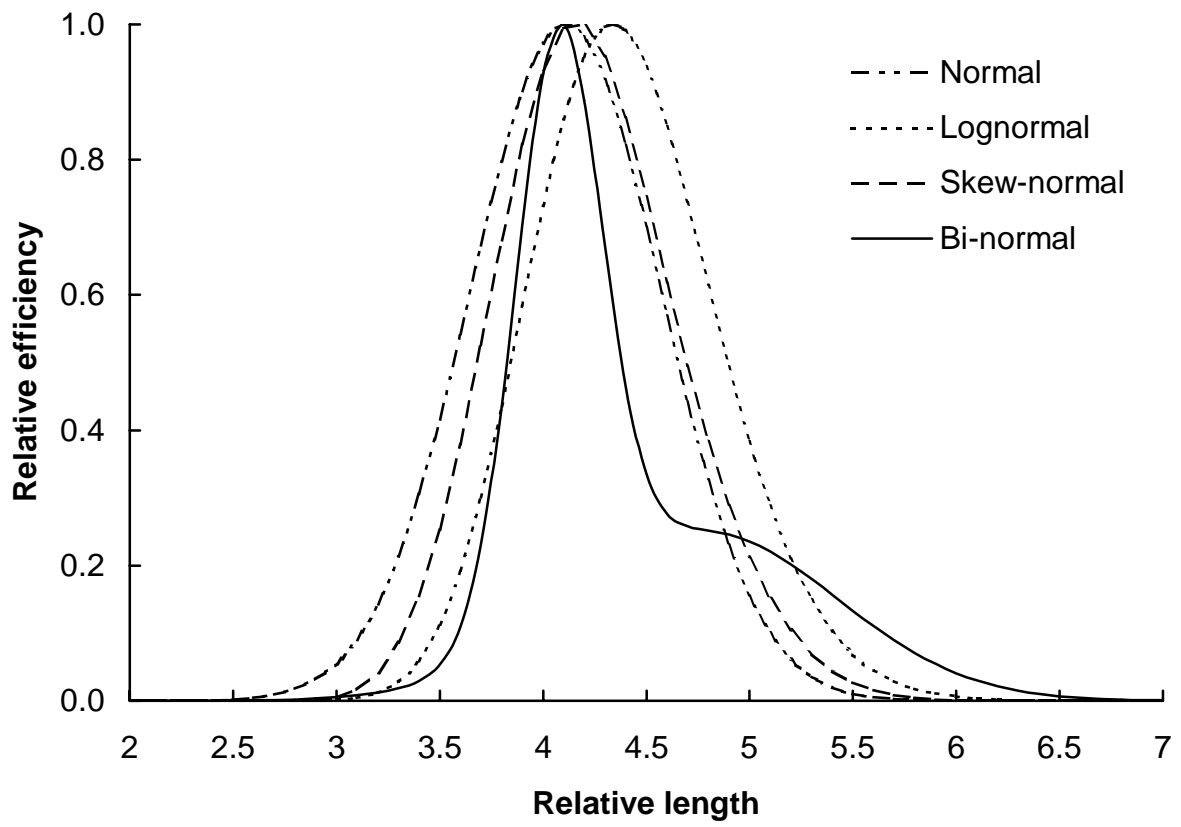


Fig. 1

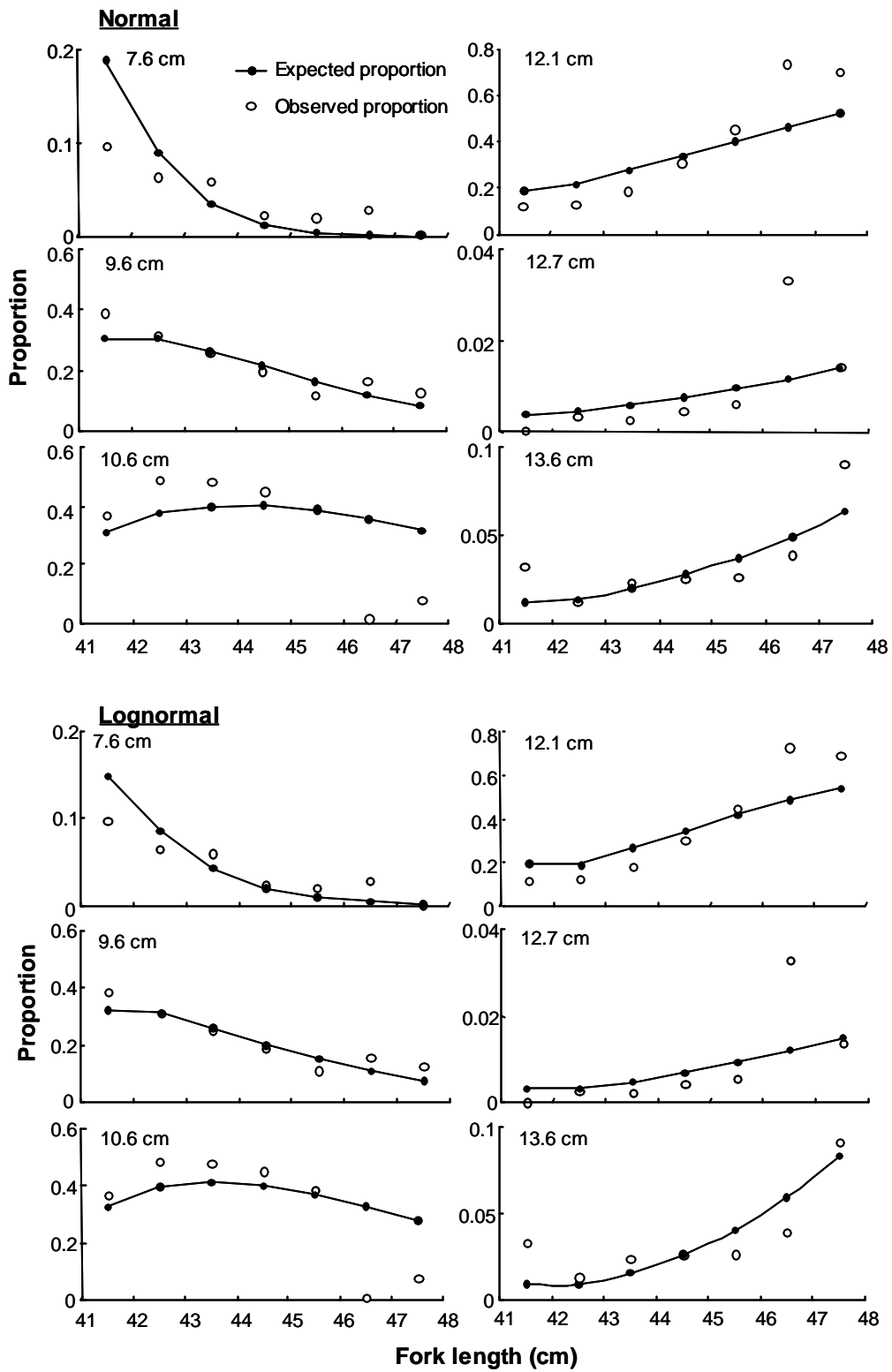


Fig. 2(a)

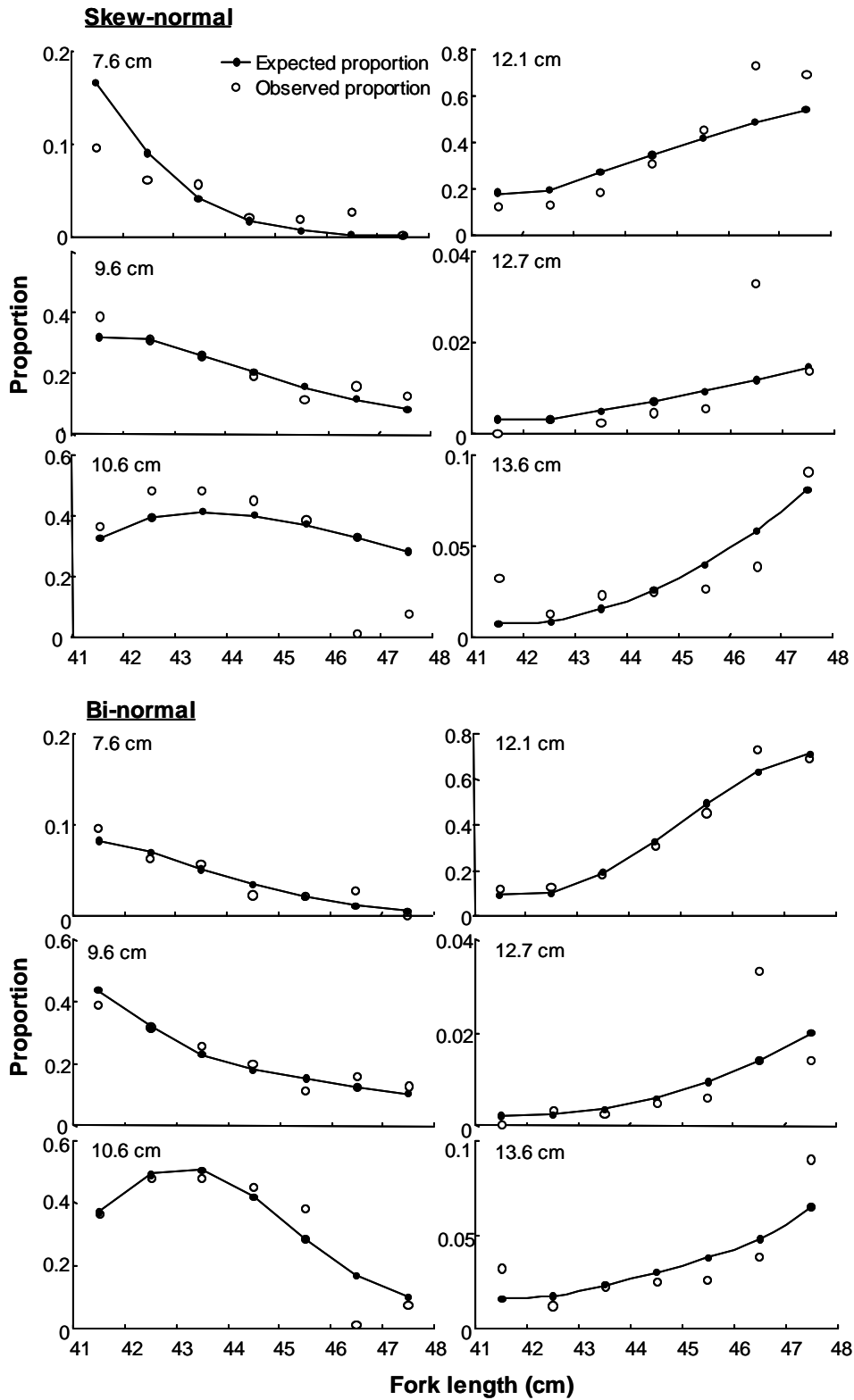


Fig. 2(b)

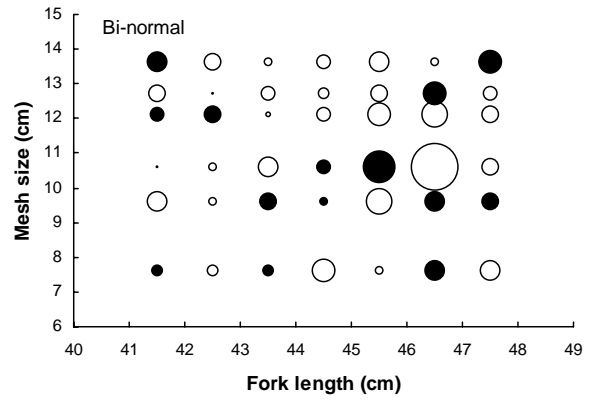
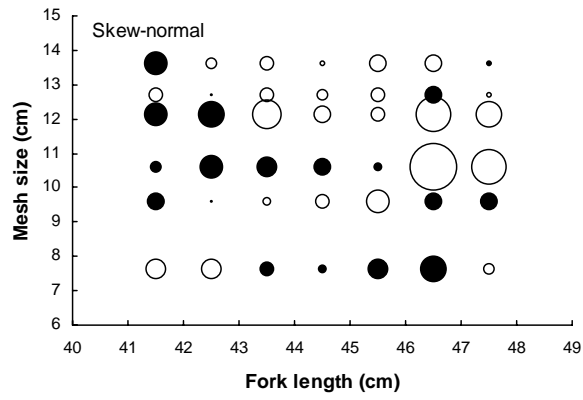
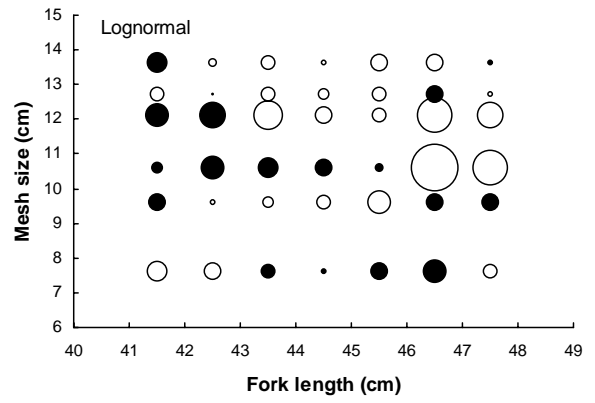
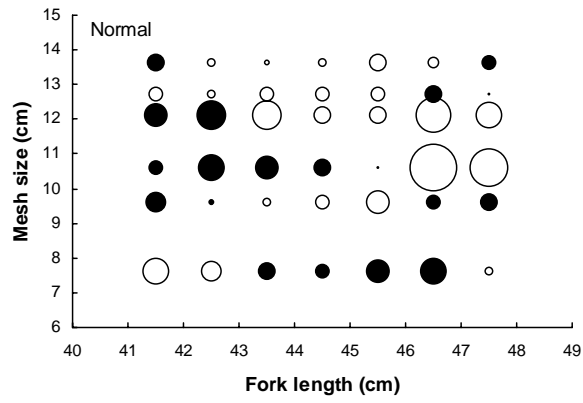


Fig. 3

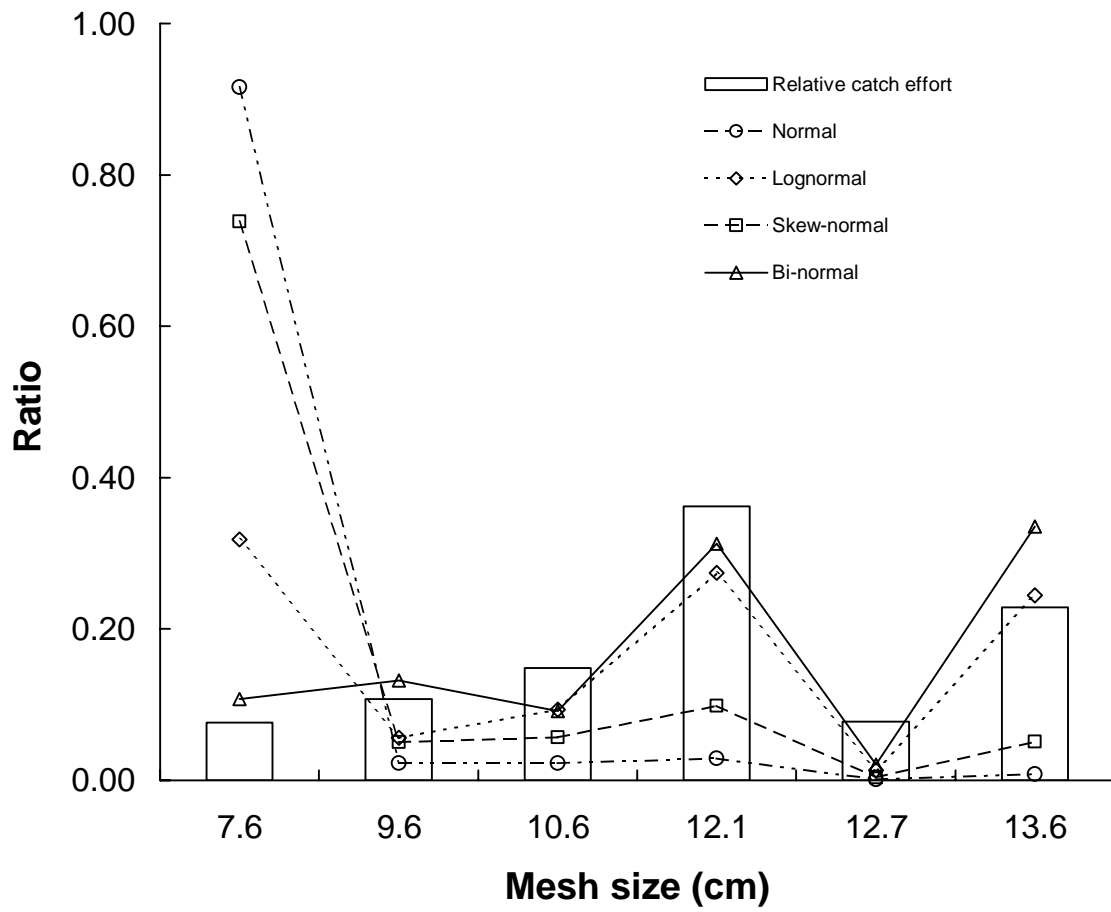


Fig. 4



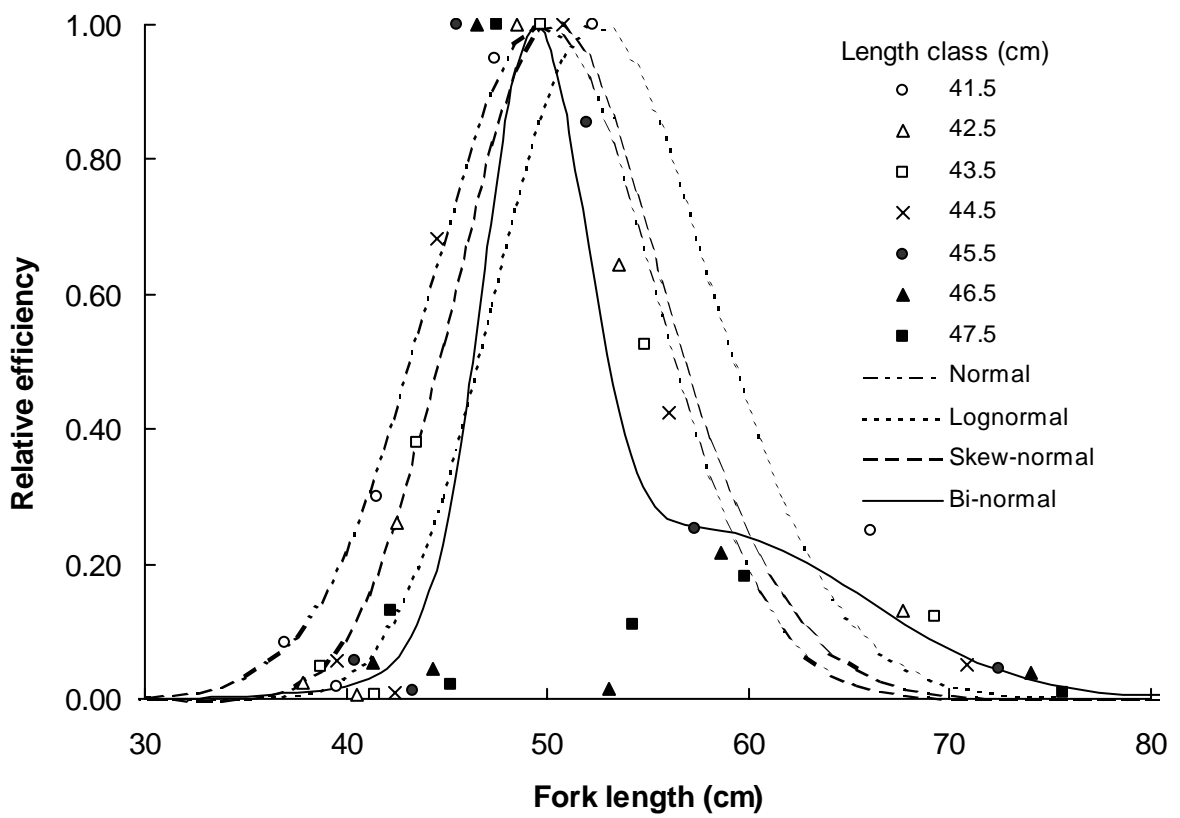


Fig. 5