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Appropriate mesh size combination of research drift net series for chub mackerel resources off Hokkaido, Pacific

メタデータ	言語: jpn 出版者: 公開日: 2020-09-16 キーワード (Ja): キーワード (En): 作成者: 佐藤, 愛美, 東海, 正, 森, 泰雄, 中明, 幸広 メールアドレス: 所属:
URL	https://oacis.repo.nii.ac.jp/records/1955

Table 1 Mesh size compositions of research drift net series and their catching efforts (panel number and length of used net) for simulation of the pooled relative catching intensity by fork length of chub mackerel

Mesh size (mm)	Current series		Scenario #1		Scenario #2		Scenario #3		Scenario #4	
	Number of panels	Length (<i>Ken</i> *)	Number of panels	Length (<i>Ken</i>)	Number of panels	Length (<i>Ken</i>)	Number of panels	Length (<i>Ken</i>)	Number of panels	Length (<i>Ken</i>)
22	1	30	1	30	1	30	1	30	1	30
25	1	30	1	30	1	30	1	30	1	30
29	4	30	4	30	4	30	4	30	4	30
37	4	30	4	30	4	30	4	30	4	30
48	2	60	2	60	2	60	2	60	2	60
55	1	60	1	60	1	60	1	60	1	60
63	1	60	1	60	1	60	1	60	1	60
72	1	60	1	60	1	60	1	60	1	60
82	1	60	2	60	1	60	1	60	2	60
93	-	-	-	-	1	60	1	60	-	-
106	-	-	-	-	-	-	1	60	1	60

*, *Ken* is the unit of length by traditional Japanese system of weights and measures, and 1 *Ken* = 1.515m

Table 2 Estimated parameter values of the four models and their AIC values

Curve function	Model	Data period	Parameters		Deviance	d.f.	AIC	Total AIC
			R_0	σ				
Normal	Pooled	All data	4.56	1.10	2396.20	361	7668.29	7668.29
	Classified	June & July	4.92	0.97	852.71	168	3179.05	7517.39
		Sep. - Nov.	4.41	1.24	1452.70	191	4338.34	
Log-normal	Pooled	All data	4.58	0.17	2042.43	361	7213.43	7213.43
	Classified	June & July	4.73	0.19	760.38	168	3165.63	7078.52*
		Sep. - Nov.	4.51	0.18	1220.24	191	3912.88	

Total AIC : Sum of AIC for June & July and from September to November in the classified model.

*, smaller value of total AIC.