

Growth Performance of Offspring from Selected and Non-Selected Brood Line of Red Sea Bream, *Pagrus major*

Choong Hwan Noh*, Kyung Pyo Hong, Jung Goo Myoung and Jong Man Kim

Marine Living Resources Research Division, Korea Ocean Research and Development Institute (KORDI), Ansan P. O. Box 29, Korea

In the present study, growth performances of the offspring from selected brood line were compared to those of the offspring from non-selected brood line of red sea bream. Offspring groups were mass produced separately from two brood lines, selected and non-selected Korean strain. Selected brood line have been selected by fish size for four generations (upper 5~30% per generation) and non-selected brood line is the second generation of wild population at south sea in Korea. There's no significant difference in body length between offspring from selected and non-selected brood line during early growing stage (until 96-days old). However, offspring from selected brood line had superior body weight growth than offspring from non-selected brood line. At sea cages rearing trials with communal stocking, Offspring from selected brood line showed significantly better performance in body weight, body length, weight gain, specific growth rate and feed consumption (but not in feed conversion ratio) than offspring from non-selected brood line. At 24 months old, offspring from selected brood line grew faster 1.10 times in body length and 1.41 times in body weight than offspring from non selected brood line. The response to selection when compared to a non-selected line is on average of 10% in weight per generation at 24 months old.

* Corresponding author: chnoh@kordi.re.kr