HORMONAL IMPLANTATION FOR INDUCING SPERMIATION IN ORANGE-SPOTTED GROUPER (*Epinephelus coioides* Hamilton, 1822)

Adul Maerah, Patchara Maerah and Arun Jundaeng
Satun Coastal Fisheries Research and Development Center, La-ngu, Satun 91110, Thailand

ABSTRACT

Inducing spermiation in Orange-spotted Grouper (*Epinephelus coioides* Hamilton, 1822) by intramuscular implantation of silastic tube contained 17α–methyltestosterone (MT) was conducted at Ko Khaoyai Research Unit of Satun coastal fisheries research and development center for 12 months, start from May 2003 to May 2004. The male groupers were tagged using microchip and implanted with the silastic tube contained MT, for 4 concentrations of 0.25, 0.5 and 1 mg/kg body weight, compared with the control which no MT (4 treatments and 7 replications, n=7). Mean body weight of the grouper was 3.82 ± 0.42 kg. The experiment was set in net cages; 5 x 5 x 2 m, using 2 cages and stocked at 14 individuals/cage. Determination of spermiation by checking the milt monthly for 12 months, the quantity of milt was rated as score 0, 1, 2 and 3. The results showed that fish implanted with MT 0.25 and 0.5 mg/kg body weight had spermiation for 3 months, with small amount of milt obtained spermiation score of 0 - 2. Whereas the fish implanted with MT 1 mg/kg body weight had the best result, (P < 0.05) with spermiation occurred continuous for 4 months with the score of 0 - 3. Comparison between fish implanted with MT 0.25 and 0.5 mg / kg body weight, spermiation had no significant difference (P > 0.05). Thus, these results indicated the optimum concentration for Orange-spotted Grouper, *E. coioides* by implantation of silastic tube contained MT was 1 mg/kg body weight.

Key words: Hormonal implantation, spermiation, Orange-spotted Grouper (*Epinephelus coioides* Hamilton, 1822)