INFLUENCE OF DIETARY PROTEIN AND SALINITY LEVELS ON GROWTH PERFORMANCE, FEEDING BEHAVIOURS AND SURVIVAL RATE OF *Siganus guttatus* IN TAM GIANG LAGOON SYSTEM

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Study on the feeding, feeding schedules and regimes on performance, feeding behaviours and survival rates of rabbit fish (*Siganus guttatus*) was conducted for one-year round from December 2006 to June 2007 at university research station on coastal region (Thuan An beach). Two experiments, Expt. 1 was allocated on 5 salinity levels (5‰, 10‰, 15‰, 20‰, 25‰), each level were accessed by 3 groups of fish, each group with 250 fish numbers. Expt. 2 was allocated with 5 different protein level trials, each trail with 3 groups, 250 fish numbers on each group. All of fish were fed a period of 60 days. Fish samples were measured for weight and length and described for feeding organs (mouth and gill). Stomach and intestine were reserved in formalin 10%, while gonad was in Bouin solution for later analysis in laboratory. Some mature females and males were also collected for induced spawning in order to observe embryo development. The feeding biology and fecundity of fish were studied using method described by Biswas (1993) and Banegal (1967), respectively. The spotted cat had the LGR (length gut ratio) of 2,88 (varying 2,59-2,93), which is considered as an omnivorous fish. The stomach and intestine of fish contained 97,8% detritus and 2,25% algae. The maturation seasons of wild fish was found from April-May and July-August. The highest GSR (Gonadosomatic ratio) was 16,4% by month and 27.2% by individual. The minimum size of mature fish was found 40,5g. The spotted cat had high absolute fecundity of 519,547±237,776 eggs/fish (varying from 215.000–1.073.733 eggs/fish) and relative fecundity was 1.915.579±880.509 eggs/kg of female (varying from 891,505–3,365,934 eggs/kg of female) for the average fish weight of 294±119g/fish. Of the mature fish population, the female was found bigger than the male. In addition, the development stages of gonad and embryo were also pictured and described detail in this paper.

Keywords: Rabbit fish, feeding, protein, salinity, performance, survival, behaviours