

BROODSTOCK NUTRITION OF ABALONE, *HALIOTIS ASININA*, LINNE: EFFECTS OF DIET ON REPRODUCTIVE PERFORMANCE

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Experiments were conducted to determine the effects of various diets on the reproductive performance of female donkey's ear abalone. Dietary treatments consisted of natural food (seaweed), D1; formulated diet, D2; combination of natural food and formulated diet, D3. Hatchery-bred abalone broodstock with initial body weight of 30-45g were stocked individually with 1 male abalone in 24, 60-l tanks with 8 replications and cultured for a period of 273 days. Spawning was monitored daily. Broodstock response in terms of number of spawning, hatching, fecundity, and egg fertilisation rate was enhanced in females fed the mixed diet, D3. Survival and final body weight of broodstock abalone for all treatments were not significantly different from each other ($P < 0.05$). Results further showed that females fed D3 gave higher numerical values in reproductive performance compared to the other 2 diets. Satisfactory results that were obtained from the reproductive performance of abalone broodstock fed D3 were attributed to the combined effects of nutrients which are essential for reproduction in the combined diets. The use of formulated diet in combination with natural food is necessary to enhance reproductive performance in broodstock abalone.