

特別講義(保全増殖学+大学院合同セミナー)

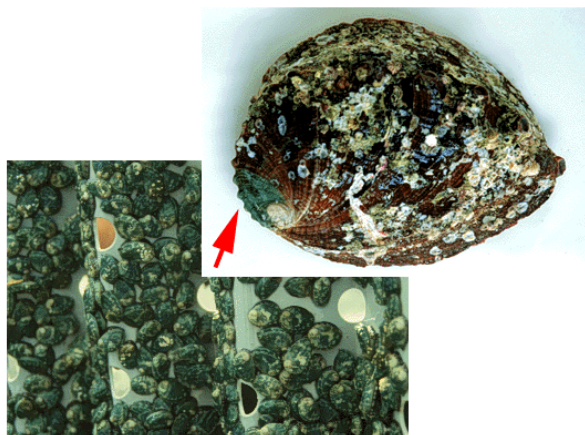
## Stock enhancement in greenlip abalone fisheries in Western Australia

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西オーストラリアでのアワビの種苗放流研究の特別講義です。奮ってご参加ください。  
(連絡先: 0536)

**ABSTRACT** A cohort of greenlip abalone (*Haliotis laevis*), spawned from wild broodstock, was monitored from birth until recruitment into the fishery (Age 6+). The targeted enhancement size - class was  $\geq 140$  mm shell length, and animals were released at age 18 months ( $31 \text{ mm} \pm 4 \text{ SD}$ ). Release densities were tailored to match wild - stock densities using a size - dependent mortality model. A total of 8800 animals were released into 28 sites, and each site was precisely mapped to control release densities. Environmental and husbandry factors were also quantified. Initial survival rates (6 months post release) differed significantly among sites (range: 11% – 67%), but not beyond this. Legal minimum length (140 mm) was achieved, on average, at 5 years of age or 3.5 years post release, and there was clear evidence of fishing mortality on the seeded cohort by Age 6+. Cumulative survival at Age 5 varied between 20% at the best sites, and 6% at the worst sites, with an average of 13%. Water depth was significantly positively correlated with growth ( $r = 0.47$ ;  $p < 0.05$ ), but no other ecological variables influenced growth or survival. Husbandry factors were implicated in sites with poor survival, but this was not confirmed statistically.