

Hatchery production of black-lip pearl oyster in Tanzania

Since 2003, World Wildlife Fund (WWF) has undertaken research to assess the potential of pearl production as a source of income for coastal communities in Tanzania (see POIB #17, 2006). The project was recently expanded through the European Union's ReCoMaP programme — a regional programme for the sustainable management of coastal zones of Indian Ocean countries. The project includes an assessment of spat collection as a means of supporting industry development in southern Tanzania, and an assessment of hatchery production of black-lip pearl oyster. Two Master's students, working through the University of Dar-es-Salaam, are conducting pearl oyster surveys and spat collection studies, and are generating preliminary growth-rate data. As part of this initiative, a small hatchery was built at Chole Bay on Mafia Island in mid-2010. Initial work in the hatchery showed that ripe broodstock can be obtained during most months of the year at Mafia Island and can be readily induced to spawn. A number of spawnings occurred in 2010, all of which produced larvae; however, initial teething problems with the

hatchery, particularly maintenance of appropriate water temperature during cooler months, resulted in failed attempts to culture larvae through to settlement. Hatchery construction and initial training of hatchery staff in 2010 was overseen by James Cook University Australia, although the first batch of larvae were cultured through to settlement in early 2011, resulting in the first production of hatchery-cultured black-lip oyster spat in Africa. More significantly, the successful hatchery run was conducted by local WWF and fisheries staff overseen by WWF's Mariculture Officer, Ismail Saidi. The simple hatchery lacks micro-algal culture facilities, so larvae were cultured using commercially available microalgal pastes (Instant Algae®, Reed Mariculture Inc.). Resulting spat will be counted, graded and distributed to local pearl farmers in mid-2011.

For more information, please contact:

Ismail Saidi
WWF, Tanzania
(isaidi@wwftz.org)



WWF Mariculture Officer (and Hatchery Manager/Operator) Ismail Saidi outside the small-scale pearl oyster hatchery built at Chole Bay within the Mafia Island Marine Park in southern Tanzania.