



Western SARE Program

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CRAB RANCHING IN THE MARIANAS

Situation

The coconut crab, a cultural icon among indigenous people of Rota and a food delicacy increasingly in demand, was once plentiful in the wild. But populations have dwindled as the crabs were hunted for their cash value.

Ranches on Rota, in the Northern Mariana Islands, have been growing captive populations of coconut crab for several decades. However, few of these part-time producers have applied scientific techniques of animal husbandry to increase yields. The penned crabs typically suffer nutrient deficiency and unsanitary conditions.

Increased demand in the tourist industry, where coconut crab may fetch \$50 a plate, has far exceeded the annual production of farm-



Wild crabs subsist mainly on figs and coconuts, but will eat almost anything organic.

raised livestock. Because of declining farm-raised stocks, most of the consumption comes from the hunted wild crabs, which is rapidly shrinking their populations.

Objectives

- Increase the captive coconut crab populations found on ranches of indigenous people on the island of Rota
- Monitor the behavior of captive crabs to assess which recycled foods they prefer and their

preferred habitat

- Develop protocols for rearing coconut crabs in captivity
- Disseminate information, in a brochure and on a webpage, to small farmers in the Northern Marianas, Guam and other parts of Micronesia

Actions

Project coordinator Henry Atalig, whose father has been growing coconut crabs on his small rural ranch for decades, used separate funding to build a concrete and cinder block coconut crab rearing facility. It measures 25 feet square and 5 feet high and is designed to mimic the crabs' natural environment. It is equipped with two

Farmer/Rancher Grant

Project Number: FW06-010

Project Title: Coconut Crab
Production Using Recycled
Food Sources

Project Coordinator:

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SARE Grant: \$10,000



The rearing facility measures 25 feet square by 5 feet high.



Western SARE, a USDA organization, funds grants for research and education that develop or promote some aspect of agricultural sustainability, which embraces

- *profitable farms and ranches*
- *a healthy environment*
- *strong families and communities.*

The Western Region, one of four SARE regions nationwide, is administered through Utah State University.

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ponds, one fresh and one salt.

The CNMI Department of Land and Natural Resources permitted Atalig to obtain wild coconut crabs, noting that his project had merit and would benefit many CNMI residents, especially current crab ranchers.

Atalig captured 104 crabs, tagging 20 for identification and weighing and measuring each for monitoring.

In addition to coconuts, the crabs are being fed a variety of locally available foods, including banana, tapioca, sugar cane, noni fruit, guava and breadfruit.

Work to be completed:

- Atalig will monitor the crabs, recording growth, reproduction, diets and other elements crucial to their well-being
- A brochure will be printed to provide information on appropriate production practices for crab ranchers
- A webpage will be produced and hosted on the Northern Marianas College website

Results

Results from the project should be available in 2008.

Potential Benefits

As with the sea turtle, the coconut crab is being hunted into being a rare creature.



Atalig's facility includes sources of fresh and salt water.

Growing these crabs using local ingredients like coconuts and other recycled foods should increase the availability of crab, potentially increasing the income not only of farmers but of businesses in

Rota's tourism industry.

Producing the crabs on farms will promote good stewardship of natural resources in the Northern Mariana Islands by relieving

pressure on hunted populations of wild coconut crabs. It will also enhance the well-being and satisfaction of island residents as the coconut crab is one of the icons of the indigenous people.



The coconut crab, the largest terrestrial arthropod in the world, can reach 9 pounds with a body 16 inches across and claws with a 30-inch span.