



AROUND THE REGION

St. Lucia

Laborie

The village of Laborie has been the focus of a three-year research project that has aimed at investigating the relationship between the status of reef resources, people's livelihoods and their participation in managing resource use. The project, called *People and the Sea: a Study of Coastal Livelihoods in Laborie, St. Lucia*, has been implemented by the Caribbean Natural Resources Institute (CANARI) and funded by the United Kingdom Department for International Development (DFID) under its Natural Resources Systems Programme. One focus of the project has been the development of technologies and management tools that can enhance the social and economic benefits from the sustainable use of coastal resources. These include the various seamoss species which were harvested from natural stocks in the past and were a source of income. The project looked at the feasibility of diversifying the species under cultivation, focusing on those that are in the greatest demand, particularly by the processing industry. The project also aimed to identify the factors that affect the development of the seamoss industry as a whole in St. Lucia.

At present only two species of seamoss are being cultivated for food in the region, the *Gracilaria* species known as GT and *Eucheuma isiforme*. GT grows fast but the

quality of its agar, in terms of gel strength, is low, making it less desirable to the seamoss processing industry. Better gels are obtained from the two species known locally as debilis (*Hydropuntia cornea*) and crassissima (*H. crassissima*). These were the species harvested from natural stocks in the past but the resource was apparently over-exploited. Earlier work in St. Lucia had shown that the growth rate of crassissima was too slow for commercial cultivation and attention was therefore focused on debilis.

Plants collected from natural stocks for vegetative propagation showed great variability in morphology and growth rate, with average doubling times of individual plants of more than two months. Over time, selection of plants based on superior growth rate resulted in the identification of a strain with a doubling time of around 25 days, as shown in the table below. While this is still slower than the currently farmed species, this should be offset by its potentially greater market demand.

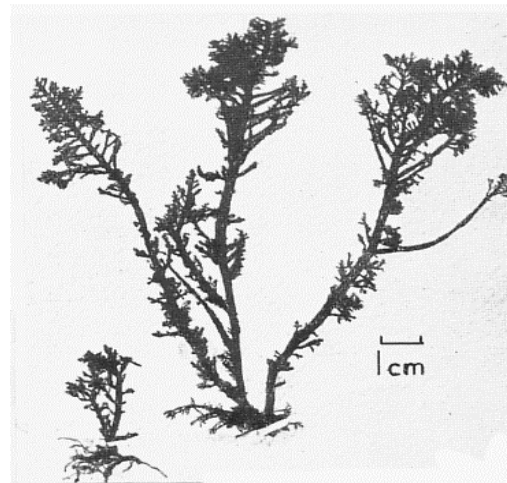
Despite the advances in production technology, the development of the seamoss industry in the region has been slow. Using the case of Laborie, the project has analysed the issues that affect it in order to formulate a development plan that will address those issues that have received insufficient attention. These include availability of marine space and rights of access, security of tenure, potential negative effects of declining water quality, availability of information on markets and marketing procedures, and access to ongoing technical assistance.

| | Species | | | |
|----------------------|----------|---------------|-------------------|----------------|
| | Eucheuma | Gracilaria GT | Debilis wild type | Debilis strain |
| Doubling time (days) | 12.4 | 15.0 | 65.0 | 24.5 |

Trinidad and Tobago

The north coast of Trinidad is an important source of seamoss that is processed into packaged drinks for local and export markets. The harvest has not been studied or documented and until recently there has been little information available on its scale and importance. In 2001 the community of Blanchisseuse decided to seek advice on the development of a management strategy for the resource, to ensure that the harvest in that area was sustainable. The Blanchisseuse Environmental Art Trust, a local NGO, approached CANARI with a request for assistance to begin the process through its Small Grants Programme, which is supported by the UK Department for International Development (DFID). With the assistance of the Institute of Marine Affairs a project was designed for a household survey to assess the economic and cultural importance of the harvest to the community. A survey of seamoss harvesters was also conducted to gather information on the status of the resource, the location of harvesting sites, the methods used in harvesting and processing, and trends in availability. The surveys showed that the harvest is significant enough to justify a study of its management requirements. This study will focus primarily on assessing the effects of different harvesting techniques on regeneration and standing stock, and developing guidelines for best harvesting practices.

The species in question is *Gelidium serrulatum* and its use for food in the region has not previously been described. As with *Gelidium* species elsewhere, its agar has a high gel strength and it is superior to any of the species used for seamoss in the region. *Gelidium* is harvested in a number of places on the north coast of Trinidad. The exposed rocky coastline where it is found is unsuitable for mariculture and management of the wild harvest is therefore the only option for maintaining production. This will be the first study aimed at management of natural seaweed stocks in the region.



Gelidium serrulatum

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