

## THE TRAINING OF FISHERIES EXTENSION STAFF\*

*by*

L.C. Devambezi  
Fisheries Officer  
Department of Agriculture  
Suva, Fiji

### ABSTRACT

This paper applies to South Pacific Territories in general, and more particularly to Fiji. It notes that the choice of trainees is of great importance and that major considerations are intelligence, age, education, adaptability, physical fitness, character, while previous experience in subsistence or local commercial fishing is not always necessary. The paper states that training in manual skills is of paramount importance, and the method used in Fiji was to order a job done, after giving a brief demonstration. Once the work was finished, the item of gear was used to provide a demonstration of its usefulness and to explain why the job had to be done in such a way; training in demonstration work comes next, and is probably the most difficult part of the work, since a demonstrator must be able to answer all sorts of questions, while theoretical knowledge of fish ecology and behaviour, and practical training in navigation and boat handling are essential adjuncts. It also emphasizes that any departure from the locally accepted techniques or types of gear must bring a definite improvement. One must be prepared to forget one's favourite way of doing a gear job for instance, if it is being done almost as well already by some other technique.

### INTRODUCTION

Within the last ten to twelve years, the South Pacific has awakened to the importance of fisheries at all levels: subsistence, local market and industrial. The number of fisheries divisions or departments went from three in 1954 to ten in 1965 for the territories within the South Pacific Commission area alone.

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It is a feature common to all these services that their first few years are devoted to experimentation and that extension work represents a relatively small part of their activities. Then the situation is reversed and extension becomes a prominent part of the programme, while the scope of experimental work becomes much narrower.

The experimental period affords considerable opportunities for education in the form "on the job training". Much of the necessary gear, if not all, can be made, mounted or modified by the personnel who later, if it proves effective, will have to demonstrate it.

Once ready, the gear has to be tested under varied conditions. Having built the gear, the future extension personnel now have a chance to study its comportment in the water, the problems of setting and hauling, the amount of gear necessary to obtain positive results etc.

The tests are themselves conducted according to certain general principles dictated by the ecology of the species sought. These principles can be understood much more readily by the trainees when they are linked with some solid object with which they are already familiar.

#### SELECTION OF TRAINEES

The initial selection of trainees in any discipline is of paramount importance, yet it is difficult to establish criteria which make it possible to recruit satisfactory personnel in sufficient numbers from limited populations.

Intelligence and adaptability, coupled with physical fitness and a pleasant disposition, appear to be much more important than education or age. Previous experience obtained locally in subsistence or market fisheries may not be an asset. A man who has held to a specific opinion about some aspect of fishing for any length of time is generally not ready to abandon it quickly, even if some different thesis is explained to him. He will want repeated proof before he will make his a new idea. It is often quicker to select subjects who have only limited experience of fishing or none at all.

#### MANUAL SKILLS

Mechanization has revolutionized every-day life, including fisheries. However, there are still many things that machines cannot do. Machine-made nets are commonly used even in undeveloped countries but they are still mended by hand even in the most advanced countries. Ropes, whether of synthetic or natural fibres, are produced mechanically, but fishermen still have to mount their nets by hand on these ropes. In boat maintenance and boat handling, manual skills are also of great importance.

Training in manual skills is therefore important. Fishermen are essentially people who work manually, and demonstrations on a black-board seldom impress them unless they have seen the demonstrator do a good job at sea as well.

It has been found preferable, in teaching netmaking, for instance, to get the trainees to the point where they can make the necessary number of meshes, batings or increases indicated in their task, before one starts explaining the purpose of different types of nets, the qualities and characteristics of various twines, or the general rules about mounting or using nets. The manual work decidedly helps the trainees to understand the theory.

An experiment carried out at sea with gear made by the trainees is worth more, in the early stages, than hours of lectures. The aim of the exercise should be set out briefly, and the peculiarities in the design of the gear explained just before the operation and again just after.

In the later stages of training, lectures can be used to great advantage, especially if they can be linked closely with practical work done in the past.

Needless to say, at least an elementary knowledge of navigation is necessary. That may be taught during the early experiments at sea. More advanced work may follow as confidence is acquired in the use of the compass. Chart work is often difficult to teach if the trainees have no previous experience.

A broad knowledge of fish ecology and behaviour is a most important part of the extension worker's baggage. This can be acquired largely through lectures, films, and books, although no occasion should be missed to link this knowledge with observations at sea.

#### WHEN THE TRAINEES BECOME TEACHERS

Once the extension workers have been thoroughly trained - and this will take approximately one year under the conditions prevailing in most small territorial services - they will know how to make use and maintain different types of gear. The range of methods should not be too vast, and should fit closely with the country's potential at the time.

A good extension worker should have more than this basic knowledge and the ability to demonstrate it. He should also be convinced of the usefulness of his work and be able to convince others that they can benefit from his teaching. He must be prepared to accept the fact that local fishermen may have solved their own problems in

their own way, and he must then try to find what part of their daily routine he can make easier. Any change he advocates must bring about a definite improvement. Nothing tangible can be achieved by changing a time proven method for another one which does not effect some savings in time, money or effort.

### Refresher Courses

At more or less regular intervals, refresher courses should be given, at which the extension workers can polish up whatever part of their knowledge has become rusty.

These refresher courses should also serve as seminars where people working in different parts of the same country can compare notes, and help each other solve their particular problems.

At a slightly more advanced level, inter-territorial seminars and courses are usually extremely beneficial, offering as they do a much broader outlook in respect of the same general problems.

### How many should be trained

It is a truism that the fewer the pupils in a class, the more time the teacher has to devote to each individual's problems. In many cases, when training courses or training centres are established, even on a temporary basis, the cost is such that it is felt one should have many trainees as can be handled, to justify the total expenditure. In the writer's personal experience, this does not produce the results one could expect at the outset.

It is preferable to have a small number of carefully selected men, who can be given individual attention with regard to their specific problems. In a small group, one finds that very soon each trainee coaches the others in whatever subject he is best in. This can be extremely profitable provided a minimum of supervision is exercised.

This attitude springs from the fact that extension workers must be very good when they begin to operate on their own. One cannot risk having a large number of average people muddling along as best they can, if one can, for the same effort and cost obtain half the number of well trained, enthusiastic workers. The impact on the fishing community of the two types of workers is quite different and there is no doubt that in spite of smaller numbers, men of better calibre do achieve more than the others. Numbers should therefore be small, and it is considered that, if one instructor only is available to deal with the main subjects of gear construction and maintenance, fishing operations

and navigation, the number of trainees should not exceed ten, nor be less than six.

If two instructors are available, 15 to 20 trainees can be handled comfortably with one 30' boat and a few dinghies - 20 to 30 trainees will require a special building with classrooms, workshop and accommodation, a staff of at least one director and three instructors, a cook and a caretaker.