

# IMPROVED MULTIPLE HANDLINE FISHING GEAR

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## Introduction

Fishermen use several fishing methods, which are expensive but often cannot achieve sufficient financial reward. Different methods of fishing have been introduced but in spite of all these, fishermen are still looking for better and inexpensive types of fishing paraphernalia.

One kind of a simple and easy to operate fishing gear is a multiple handline, locally known as “Toga-toga”. It consists of a number of hooks in a single line baited with fibrous artificial lures, which are reusable. It eliminates the problem of the fishermen looking for natural baits that are expensive and hard to find every time they are needed.

Multiple handline is the third most popular fishing gear used by the local fishermen in Ilocos Norte (Asia *et al.*, 2000). Accordingly, this fishing gear is also one of the most productive and profitable fishing gears and contributes much to the fishermen’s income.

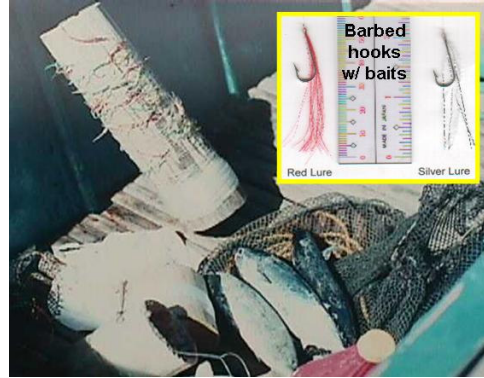
With the introduction of fish aggregating devices (locally known as “payaw”) in the Ilocos Provinces in the 1980s, line fishing has been found to be effective and sustainable in harvesting them. Multiple handlining in payaw areas were first introduced in the early 1990s by the local fishermen. To fully benefit from this fishing gear, a study was conducted to further improve its catching efficiency. Through this study, the best lure color, hook distance and time of the day for its operation were identified.

## Features and Operation

### Features

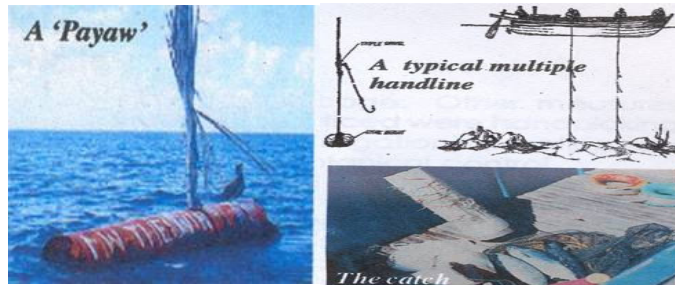
Multiple handline is a type of fishing gear with a 25-m single vertical line with a series of barbed hooks attached to it by 15-cm length spreaders or branchlines at regular intervals of 30-cm. Baits used are either natural or artificial lures.

The recommended handline is made of a 25-m length nylon monoline (#010-012) consisting of nine hooks (#564) attached to it by 15-cm branchline (nylon monoline #08-010) at intervals of 100-cm. Each hook is covered with red colored lure.



### Fishing Operation

Fishing operations are done in the vicinity of set fish aggregating devices (payaws). One man aboard a fishing boat operates the fishing gear from 6:00 to 10:00 o'clock in the morning and/or 2:00 to 6:00 o'clock in the afternoon. The best time of fishing operation is in the morning.



The lures are kept in motion through the water by jiggling the fishing gear (an up and down movement of the arm) while drifting. When a fish is caught as felt on the line, the line is hauled completely as fast as possible on board the boat to unhook the fish. The line is reset immediately after unhooking. This is done, as many as there are fishes caught during the period of a unit operation.

The main catch consists of three pelagic species of fish, namely: *Thunnus albacares* (locally known as “Dumadara”); *Decapterus macarellus* (galunggong); and *Katsuwonus pelamis* (skypjack).

## **Benefits/Advantages**

The improved multiple handline has a higher catching efficiency than the commonly used multiple handline by the fishermen in Ilocos Norte. Return of investment (ROI) in the farmer is 225.12 while the commonly used handline has an ROI of 6.70.

The use of artificial lures dispenses the effort of obtaining natural baits. Artificial lures also are re-usable, easier and cleaner to handle and readily available in the market compared to natural baits such as worms, insects, frogs and other kinds.