

Resource Assessment of Sea Cucumber in Northern Iloilo, Central Philippines

*Perry A. Alpasan** and Romy A. Billones

Northern Iloilo Polytechnic State College, Estancia 5017, Iloilo

* rdsnipsc@yahoo.com

A resource assessment of sea cucumber was conducted in six out of eight coastal towns in northern Iloilo, a fisheries rich area facing the Visayan Sea in the central Philippines. A yearlong assessment was conducted in 2012. Fishery dependent survey was done with the use of survey questionnaire translated into dialect. Six trained enumerators administered the questionnaires to 114 gatherers and 18 local traders. Fishery independent survey involving Belt Transect Method (BTM) for intertidal areas and Timed-Search Method (TSM) for subtidal areas were conducted in 21 GPS (Global Positioning System)-referenced sampling stations. Sample specimens were also collected and prepared for taxonomic identification. External morphology, internal structures (dissected samples) and spicule analysis were used in the identification.

Fishery dependent survey showed that gleaning (40%) is the most dominant extraction method used. Various methods were also employed including the dangerous compressor diving and the destructive karas, a method using a rake-like device to scrape the sea bed. In terms of volume, the most heavily exploited sea cucumber belongs to the *Stichopus* groups. The trade of sea cucumber is dominated by island-based traders. Almost half of the traders are women, signifying that trading is a woman's domain as well. Derived monthly income from sea cucumber trade ranges from PhP 2,000–3,000 for gatherers and PhP 2,000–5,000 for the traders.

Fishery independent survey resulted in the identification of six sea cucumber genera (*Bohadschia*, *Holothuria*, *Paracaudina*, *Pseudocholochirus* and *Stichopus*). Of the 32 species found belonging to the six genera, only 16 were identified up to the species level. Samples of unidentified specimen were sent to the University of the Philippines – Marine Science Institute (UP MSI) laboratory for molecular taxonomic identification. In terms of species count, the most dominant genera is the *Holothuria* with nine identified and seven unidentified species. *H. impatiens* is also the most dominant sea cucumber found in the area. Further, the recorded catch per unit effort (CPUE) for fishery-independent survey is 3–4 pcs/diver/hr.

The resource assessment showed that the trade of sea cucumber is dictated by economic value rather than by ecological abundance. While the scale and extent of sea cucumber fishery in northern Iloilo is small-scale and island based, the study highlights the need for trade regulation and stock enhancement of heavily exploited species as extraction affects the ecological distribution of sea cucumber stocks in the area.

Keywords: sea cucumber, northern Iloilo, resource assessment, trade regulation