

**FIELD PRACTICE REPORT ON THE FISH STOCK ASSESSMENT FOR
COMMERCIAL FISHERIES SECTOR IN REGION III, 2010-2014**

by

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2018

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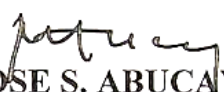
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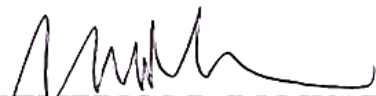
**Undergraduate Field Practice Report presented to the faculty
of the College of Fisheries, Central Luzon State University
in partial fulfillment of requirements for the degree**

of


BACHELOR OF SCIENCE IN FISHERIES

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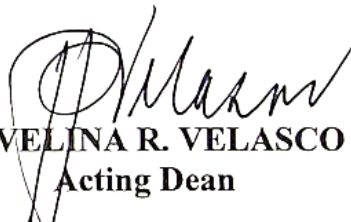

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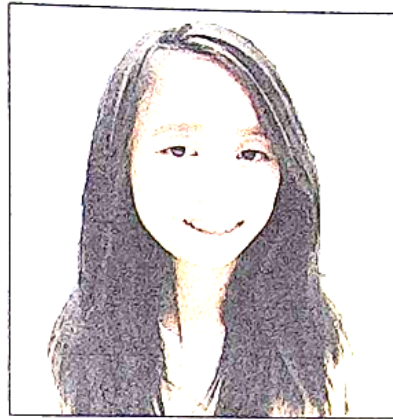
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2018

BIOGRAPHICAL DATA



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FIELD PRACTICE REPORT ON THE FISH STOCK ASSESSMENT FOR COMMERCIAL FISHERIES SECTOR IN REGION III, 2010-2014^{1/}

EXECUTIVE SUMMARY

The field practice was done at the Bureau of Fisheries and Aquatic Resources (BFAR) Region III located in Miimpis, San Fernando, Pampanga. The conduct of the field practice started on June 27 and ended July 30, 2016. The field practice focused on the National Stock Assessment Program (NSAP), a 240 hour training which aimed to teach and orient the author of Biological Fisheries. It provides her basic knowledge and technical skills.

The author encoded the data gathered by the field enumerators in NSAP Database System at the NSAP office. She was also oriented and trained how to analyze the data from the system. She was expected to analyze and assess the data from the system for commercial fisheries sector of the region from year 2010 to 2014. The author was also exposed to actual field activities which are sampling, gathering data and on-site observation in two landing sites in the region, Masinloc, Zambales and Orion, Bataan.

^{1/} Undergraduate Field Practice Report presented in partial fulfilment of the requirements for graduation with the degree of Bachelor of Science in Fisheries. Prepared under the supervision of Dr. Jose S. Abucay under the Department of Aquatic Resources, Ecology and Management, College of Fisheries, Central Luzon State University.

REFERENCES

Rueca, L.M., N.B. Bien, R.M. Bathan, J.I. Yuzon and G.B. Salamat. 2009. Fish Stock Assessment in Northern Zambales Coast. BFAR NFRDI Technical Paper Series. 101 p.

William, P. 2004. Preliminary review of data collection forms used in the Philippines tuna fishery. 18 p.

<http://www.adnu.edu.ph/Centers/SSRC3/articles/art02.htm>

<http://www.aurora.ph/baler-aurora-book/geography.html>

<http://www.bioflux.com.ro>

<http://www.centrelluzon.com>

<http://nsap.weebly.com/>

[https://en.wikipedia.org/wiki/Aurora_\(province\)](https://en.wikipedia.org/wiki/Aurora_(province))

https://en.wikipedia.org/wiki/Manila_Bay

www.baler.gov.ph