

THE EFFICIENCY OF CIRCLE AND CONFORMAL MAPPINGS IN ANALYSIS OF  
SMITH PATTERN OF TRANSMISSION LINE (*Scattering matrix delay*)

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**THE EFFICIENCY OF CIRCLE AND OCTOPUS HOOKS IN ANGLING OF  
SMITH DELAGOA THREADFISH BREAM (*Nemipterus delagoae*)**

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## ABSTRACT

In this study, comparison of the missed fish, hooking efficiency, injury rates and mortality potential of circle hooks and common octopus hooks for Smith Delagoa Treadfish Bream has been conducted. The Smith Delagoa Treadfish Bream was captured along Terengganu coastal water. The terminal set up for both hook were standardized for all the angler. Upon detecting a strike, angler's fishing with octopus hooks was instructed to set the hook whereas those fishing with circle hook were told to reel in any slack and to apply constant pressure to the line. While capture, the anatomical location of the hook were recorded. Ease of hook removal was categorized using the slight modifications. After assessing ease of hook removal, the recorder looked for the presence of blood and recorded responses as either none, little or serious. In the present study, 25.67% fish captured on circle hooks were less bleeding and were more easily to remove from the hook than those were captured on octopus hooks with 48.94 %. Majority of fish landed with circle hook were hooked at side jaw with 42.66% while 45.82% fish landed by octopus hooks were hooked at gullet. Results showed that mortality potential rate of circle hook were lower than octopus hook with 18.81% for circle and 43.66% for octopus. However, the rate of missed fish is lower by using octopus hook 38.57% than circle hook 44.23%. The result indicates that circle hook is better than octopus hook in conservation benefits but having different captured rates.