

A COMPARATIVE STUDY OF THE SHOCKING ABILITY
OF ELECTROSHOCKERS ON LAMPAM JAWA,
Puntius Gonionotus (BLEEKER) JUVENILES

BY

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B. Sc. (FISHERIES)

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FACULTY OF FISHERIES AND-MARINE SCIENCE
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A project Report submitted in partial fulfillment of the
requirement for the Degree of Bachelor of Science (Fisheries)

FACULTY OF FISHERIES AND MARINE SCIENCE

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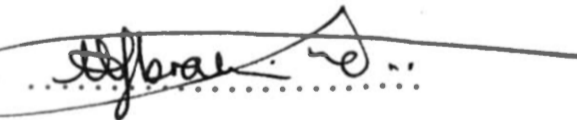
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FACULTY OF FISHERIES AND MARINE SCIENCE

The Undersigned certify that they have read, and they commend to the Faculty of Fisheries and Marine Science, for the acceptance a research project report entitled, 'A Comparative Study Of The Shocking Ability Of Electrosickers On Lampam Jawa, Puntius gonionotus (Bleeker) juveniles' Submitted by Azman bin Yusof in partial fulfillment of the requirement for the degree of Bachelor of Science (Fisheries).

 (Mohd. Isa Mansor)

Supervisor



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Dean
Fakulti Perikanan & Sains Samudra
Universiti Pertanian Malaysia.....
.....

Chairman,
Research Committee.

Date..... 5 / 4 / 83

Dedicated to:

My Beloved Parents

Brothers

and

Sisters.....

Acknowledgments

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Azman Yusof
Sixth College
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Abstract

When a fish enters an alternating current electrical field, the initial stage of reaction observed is transverse oscillataxis. The second stage is hypnosis whereby the fish rolls onto one side. Generally, when higher voltage is applied, the fish directly exhibits hypnotic reaction. The third stage is mortality when the voltage reaches lethal threshold value.

Four stages of reaction can be distinguished when fish enter the direct current electrical field. The first stage is agitation when the current is felt. The second stage is galvanotaxis; fish swims towards the anode. The galvanonarcosis is the third stage exhibited whereby the fish rolls onto one side. Mortality is reached when the voltage reaches threshold value.

The study revealed that the portable electroshocker (Model BP-1C) is more effective in its shocking ability than the Regulated Main Supply electroshocker.

Abstrak

Apabila ikan ada didalam medan elektrik arus ulang alik, reaksi peringkat pertama yang diperhatikan adalah 'transverse oscillataxis'. Peringkat keduanya adalah 'hypnosis' di mana ikan terbalik pada satu bahagian badan. Pada amnya, apabila voltan yang tinggi dikenakan, ikan akan beraksi terus kepada reaksi 'hypnotic'. Peringkat ketiga reaksi adalah peringkat kematian apabila voltan yang dikenakan mencapai nilai 'lethal threshold'.

Empat peringkat reaksi dapat diperlihat bila ikan berada di dalam medan elektrik arus terus. Peringkat pertama adalah peringkat 'agitation'. Peringkat kedua dikenali sebagai 'galvanotaxis' di mana ikan berenang arah ke anod. Peringkat ketiga adalah 'galvanonarcosis' di mana ikan akan terbalik disatu bahagian badannya. Kemudian ikan tersebut akan mati apabila nilai voltan mencapai nilai 'lethal threshold'.

Kajian ini telah menentukan bahawa 'Portable electroshocker (Model BP-1C)' adalah lebih berkesan dalam keupayaan kejutanya berbanding dengan 'Regulated Main Supply electroshocker'.