



St. Xavier's College (Autonomous)
5, Mahapalika Marg, Mumbai-400001

**DEVELOPMENT OF SPECIFIC DNA MARKERS FOR
IDENTIFICATION OF *CLARIAS MAGUR* AND *CLARIAS
GARIEPINUS* AND THEIR HYBRID USING RAPD**

A dissertation submitted to St Xavier's College- Autonomous

For the partial fulfilment of the degree of Master of Science in Biotechnology

By

Ms. Pinto Nikita Noel
MSc. (Biotechnology)
2019-2020

Under the guidance of
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POST GRADUATE DEPARTMENT OF BIOTECHNOLOGY

St. Xavier's College (Autonomous)

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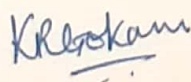


CERTIFICATE

This is to certify that Ms. Pinto Nikita Noel, student of MSc (Biotechnology) - Semester IV, at the Post Graduate Department of Biotechnology, St. Xavier's College (Autonomous) has submitted the dissertation work titled "Development of specific DNA markers for identification of *Clarias magur* and *Clarias gariepinus* and their hybrid using RAPD" for the partial fulfilment of the Master's degree in Science in Biotechnology, during the academic year 2019-2020.

Date:

Place: Mumbai



Dr. Karuna Gokarn

Head of the Department, PGDBT

POST GRADUATE DEPARTMENT
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MUMBAI-400 001.



भारतीय कृषि अनुसंधान परिषद
केन्द्रीय मात्स्यिकी शिक्षा संस्थान

(वि. अ. आ. अधिनियम धारा-3 के अंतर्गत विश्वविद्यालय)

ICAR-CENTRAL INSTITUTE OF FISHERIES EDUCATION
(University under Sec.3 of UGC Act)



CERTIFICATE OF COMPLETION

This is to certify that Ms. Pinto Nikita Noel, student of MSc (Biotechnology), St. Xavier's College (Autonomous), Mumbai has completed four months training/ Research Project at the Fish Genetics and Biotechnology Lab, ICAR- Central Institute of Fisheries Education (CIFE) during the academic year 2019-2020.

She has completed the dissertation work entitled "Development of specific DNA markers for identification of *Clarias magur* and *Clarias gariepinus* and their hybrid using RAPD" for the partial fulfilment of MSc. (Biotechnology) degree. She has been familiarized with the following techniques during this project:

- Isolation of genomic DNA
- Polymerase chain reaction
- Gel electrophoresis
- DNA purification
- T/A cloning
- Primer designing
- RAPD and application in marker development

This carefully written report represents the experiments and literature related to the same carried out by her during the period from 1st December 2019 to 31st March 2020.

I found Ms. Pinto Nikita Noel to be an intelligent, sincere and hardworking student who is eager to learn. Her overall conduct was good and congenial.

PI/Supervisor: Aparna Chaudhari

Signature: Aparna Chaudhari

Date: 17.06.2020

Seal of the institute

