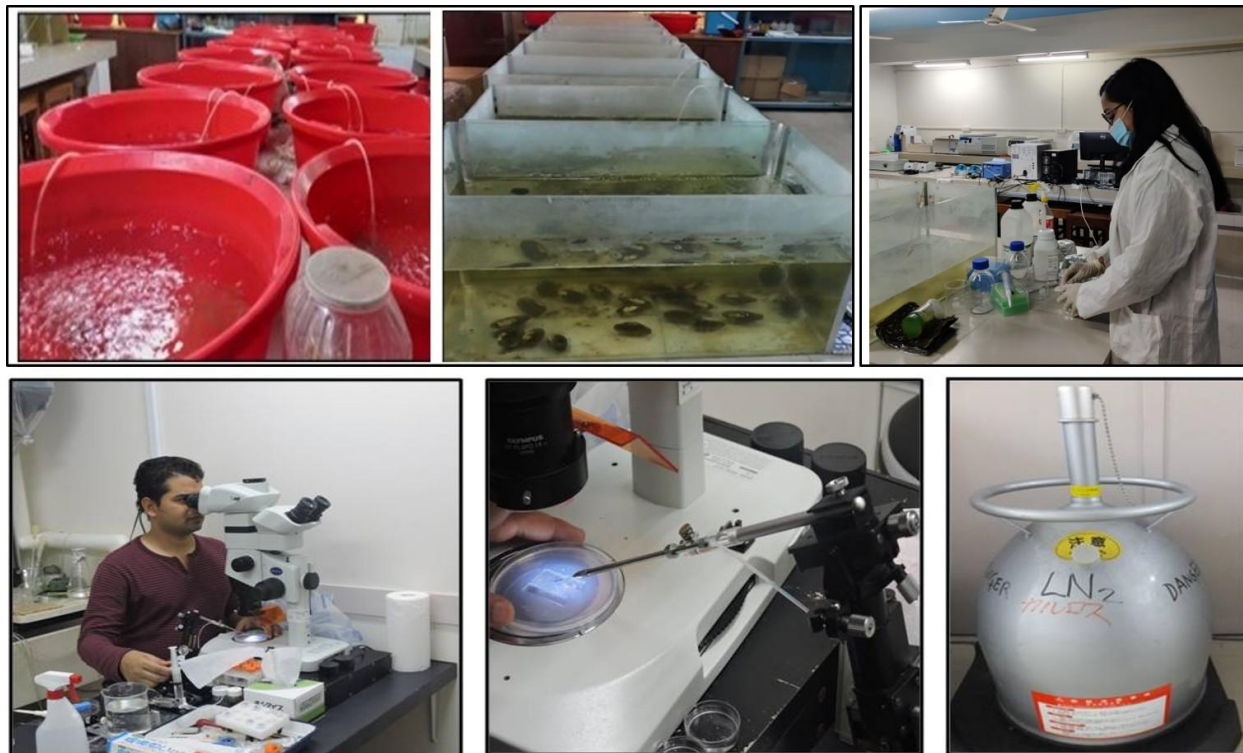


## **Molecular Biology and Conservation Laboratory**



Molecular Biology and Conservation Laboratory is one of the most resourceful laboratories under the department of FBG of Faculty of Fisheries. There are a large number of modern equipments in this laboratory. This equipment enables in advanced level molecular work facilities to this laboratory. The following laboratory facilities and research activities are available in this laboratory.

### **Laboratory Facilities:**

The department has well-established Molecular Biology and Conservation Laboratory along with a wet laboratory with modest facilities for teaching practical classes and research programs at undergraduate and graduate levels. The laboratory has facilities for molecular genetics and biotechnological studies including DNA isolation, measurement using spectrophotometer, DNA amplification (PCR), and other equipment necessary for advanced research. Additionally, the laboratory is currently being utilized especially for the standardization of cryopreservation protocols for the spermatozoa, eggs, and embryos of different aquatic organisms. The laboratory is also well equipped with the facilities for larval and fry rearing in the wet laboratory.

**Research Activities:**

Both fundamental and applied research works related to the taxonomy, biodiversity, functional morphology, reproductive biology, fish breeding, characterization of seaweeds, gene expression, and other aquatic organisms are carried out by teachers and graduate students of the department. The research program is carried out either as a part of the graduate (B.Sc. and MS) program. One of the most widely explored areas of research in this department is the development of induced breeding techniques especially of commercially important endangered species Yellowtail catfish, *Pangasius pangasius*. The department of FBG produces some significant findings on cryopreservation of sperm, gene transfer technology, seaweed-based organic feed development through transcriptomics, gut microbiota analysis, and the isolation of peptides from fishes.

**Established Date:** 11/07/2017

**Financed by:** PSTU Revenue Fund (DPP)

**List of equipments in the Molecular Biology and Conservation Laboratory**

SN.	Name of the equipment	Quantity	Specification	Date and cost of purchase	Present condition
1.	PCR Machine (Thermal Cycler)	1 Pc			Good
2.	Centrifuge machine	2 Pcs			Good
3.	Mini Desktop Centrifuge	2 Pcs			
4.	Deionized water Plant	1 Pc			Good
5.	Electronic balance	3 Pcs			Good
6.	Incubator	1 Pc			Good
7.	Water Bath	1 Pc			Good
8.	Wax incubator	1 Pc			Good
9.	Microtome machine	1 Pc			Good
10.	Electronic Microscope	3 Pcs			Good
11.	Confocal Microscope	1 Pc			Good
12.	Horizontal Laminar Air Flow Cabinet	1 Pc			Good
13.	Ice Box	3 Pcs			Good
14.	Automatic lab autoclave	1 Pc			Good
15.	Microwave Oven	1 Pc			Good
16.	Vortex Mixer	2 Pcs			Good
17.	Hot plate	2 Pcs			Good

18.	LN <sub>2</sub> Container	3 Pcs			Good
19	Glass Aquaria	10 Pcs			Good
20.	Horizontal Gel Electrophoresis	1 Pc			Good
21.	Vertical Gel Electrophoresis	1 Pc			Good
22.	Hematology Machine	1 Pc			Good
23.	Near Infrared Spectrophotometer	1 Pc			Good
24.	Freezer (-20°C)	1 Pc			Good
25.	Freezer (-80°C)	1 Pc			Good
26.	Refrigerator	1 Pc			
27.	Monitor	1 Pc			Good
28.	Mouse	1 Pc			Good
29.	Keyboard	1 Pc			Good
30.	UPS (Uninterrupted Power Supply)	1 Pc			Good
31.	Printer	1 Pc			Good
32.	Steel Rack	3 Pcs			Good
33.	Multimedia Projector + Remote	1 Pc	Hitachi		Good
34.	White Board	1 Pc	AKIJ		Good
35.	Wall Clock	1 Pc	–		Good
36.	Air conditioner	2 Pcs	Singer		Good
37.	Fan	4 Pcs			Good
38.	Tube Light	10 Pcs	LED		Good
39.	CCTV camera	1 Pc			Good
40.	Wooden Table	2 Pcs			Good
41.	Wooden Tool	20 Pcs			Good
42.	Dust Basket	1 Pcs	–		Good