














LIST OF MAJOR R&D EQUIPMENT / DEVICES IN LABS OF PMNH







S. No.	Equipment/Device/Machine Make /Model /Specifications	Qty	Purpose/ Utilization	End-user Utilization	Commercialization Aspect	Images
BOTANICAL SCIENCES DIVISION LAB						
1.	Leminar Flow Chamber Forma Scientific	01	It is used for inoculation and removal of microorganisms on daily basis and for inoculation and preparation of Petri plates media	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	
2.	Incubator Yamato 1A81 Hot pack LEEC	03	It is used for preservation of samples on daily basis and for storage of culture/ media	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	
3.	Weighing balance Mettler PM 300 Sartorius	01	It is used for measuring/ balancing of different Chemicals / liquids. Daily basis use for measuring different chemicals.	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	
4.	1. Autoclave Eastern EA 630 2. Hirayama HVE-50	02	It is used for sterilization of media and glassware and for preparation of media, sterilization of glassware etc.	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	

5.	Hot air drying ELL (HB2 7HHP) 2001 chamber	02	It is used for removal of moisture from samples on daily basis for drying of different samples.	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	
6.	Plant growth Chamber Thermo Scientific 2017		It is used for growing plants in control conditions and sowing 04 different seeds at a time in a month.	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Not available for commercialization	
7.	GPS (E-Trex) GPS (E-Trex)		It is used for field visit and to calculate geographical locations by receiving information from GPS. Helpful in field data collection.	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	




EARTH SCIENCES DIVISION LAB






1.	Polarizing Microscopes 1) Olympus BH-2 2) Meiji MT-9430 3) Olympus BH-2	03	These microscopes are essentially required to observe the fineness and perfection of the thin sections and also for petrographic study of rocks/ minerals micro fossils.	For PMNH scientists only	Not available for commercialization	 
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2.	Electric oven Memmert TRPU-40 854 Germany	01	It is used to remove moisture from the rock samples for further sedimentological and geochemical processes.	For PMNH scientists only	Not available for commercialization	
3.	Ultrasonic cleaner Kerry Type PUL 325	01	It is used for shaking of rock samples and for cleaning delicate metal.	For PMNH scientists only	Not available for commercialization	
4.	Jaw crusher Turret Engineering Ltd.	01	It is used to reduce the size of large rocks samples into smaller size like gravels, and also for recycling of the waste materials.	For PMNH scientists only	Not available for commercialization	
5.	Rock/ Tile cutter	01	It is used for the cutting of rocks and minerals into smaller size for study.	For PMNH scientists only	Not available for commercialization	

6.	Thin section equipment	01		Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	     
	i. Cutting & grinding unit	01	i) It is used for cutting and grinding of rocks and minerals up to the desired size.			
	ii. Lapping & polishing unit	01	ii) It is used for lapping and polishing of thin section of rocks and mineral samples for study of mineralogy, petrography, sedimentology and palaeontology.			
	iii. Bonding unit & hotplate	01	iii) It is used for mounting of rocks and mineral samples on the slides for thin section preparation.			

ZOOLOGICAL SCIENCES DIVISION LAB

1.	Binoculars Bushnell (22x50 Expel)	1	It is used to see distant animals especially ungulates and carnivores during fieldwork	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	
2.	Binoculars Olympus (12x50 Exp1)	1	It is used to see distant animals especially ungulates and carnivores during fieldwork	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	
3.	Digital Single Lens Reflex (DSLR) Camera Canon EOS 6D with 24-105mm Lens with Bag	1	It is used for preparation of high definition digital images of zoological specimens during laboratory and fieldwork	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Not available for commercialization	
4.	Telephoto Zoom Lens Camera Canon EF 100-400mm with Bag (Camera & lens), 32GB SD Card Class 10 extreme	1	It is used to prepare digital images of distant flying birds and mammals during fieldwork	Researchers/ Scientists and students of M.Sc/MS/ Ph.D.	Not available for commercialization	
5.	GPS Garmin model MAP78 (Garmin)	1	It is used for navigation and positioning data during field studies	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	

6.	GPS MAP 276Cx (Garmin)	2	It is used for navigation and positioning data during field studies	Researchers/ Scientists and students of M.Sc/MS/ Ph.D.	Available for commercialization	
7.	Laser Range Finder (Nikon)	1	It is used to calculate ariel distance (stream widths, cliff to cliff distance etc.) during fieldwork	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	
8.	Microscope Olympus ZSx16 with computer	1	It is used for studying very minute morphological characteristics of insects and invertebrates.	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization (under technical Lab supervision)	
9.	Microscope Olympus ZSx7 with computer	1	It is used for studying morphological characteristics of insects and invertebrates.	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization (under technical Lab supervision)	
10.	Microscope (wild heerbrugg)228513	1	It is used for studying morphological characteristics of insects and invertebrates.	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	

11.	Trail Master Camera traps Reconyx (Ultra fire WR6)	25	It is used for monitoring the presence of mammals/reptiles during field studies	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Not Available for commercialization	
12.	Spotting Scope Bushnell 20-60 X 80 kit	1	I is used to monitor and see birds and mammals from distant pickets during fieldwork	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	
13.	Weather Tracker 4500NV	1	It used to monitor weather profile during ecological and systematic fieldwork	Researchers/ Scientists and students of M.Sc/MS/Ph.D.	Available for commercialization	