

COLLEGE OF AQUACULTURE AND FISHERIES
List of major existing equipments in laboratories

Labs for fish biology

No.	Equipment name	Quantity	Manufacturer/ Country of origin	Year of procurement	Use	Working or not working	Project / Funding source
LAB: Zoo-Physiology laboratory							
1	ULTRA TUR homogenizer	1	USA	2006	For homogenising	working	ACIAR
2	UV/Vis Spectrophotometer (16 well)	2	Australia	2008 & 2011	For enzyme analysis	working	1 Physcam Danida, 1 Deltaquasafe CUD
	UV/Vis Spectrophotometer (8 well)	1	Pharmacia biotech		sample analysis	working	
3	Na,K Ionic meter	1	UK	2008	ions analysis	working	Physcam Danida
4	Chlorine Ionic meter	1	UK	2008	ions analysis	working	Physcam Danida
5	Refrigerated Centrifuge 1.5/2ml Mikro220R	1	Mikro	2006	sample preparation	working , cooler broken	E.E.C1
6	Handheld Multiparameter Intrument YSI 556	1	USA	2006	water quality mesurement	working	E.E.C1
7	Auto test-tube Clearner H-1175	1	Hotpack	2006	test-tube clearner	working	E.E.C1
8	Microscope CX 21 Olympus	1	Philippin	2012	sample observation	working	TRIG
9	Microscope CX 22 Olympus	1	China	2012	sample observation	working	Advance in Aquaculture
10	Refractometer Atago	1	Japan	2008	salt concentration mesurement	working	PTHDSN 2008
11	Osmotic pressure meter -Fisk-one ten	1	USA		osmotic mesurement	working	
12	Osmotic pressure meter -HR33TR	1	USA	2007	osmotic mesurement	working	Physcam Danida
13	Centrifuge hematorit sigma 201m	1	Germany		blood parameter mesurement	working	
14	Balance 4 digits	1	Germany		experiment preparation and analysis	working	E.E.C1.5
15	Balance 2 digits	2	Germany		experiment preparation and analysis	1 working, 1 broken	
16	hotplate stirrer lab companion	1	Korea	2006	chemical preparation	working	E.E.C1
17	Water bath	1	Korea	2006	sample analysis	working	E.E.C1
18	Refrigerator	3	LC	2011	sample and chemical storing	working	Deltaquasafe CUD
19	Air-conditioner	1	Mitsubishi	2009	environment temperature control	working	Physcam Danida
20	Multiskan Spectrum* Microplate Photometers	1	Multskan	2001	sample analysis	working	Jircas
21	ITMPA-48 Eight Channel Monitoring System	2	ITMPA	2007	controlling oxygen in tank	working	Physcam Danida
22	Refrigerator Alaska LC-533C-6910 SHA	1	Alaska	2011	sample and chemical storing	working	Deltaquasafe CUD
23	Microscope AKRUSS	2	AKRUSS	2003	sample observation	working	Tăng cường CSVC 2004 (HDBT 2004)

LAB: Aquatic nutrition laboratory							
1	Balance - 4 digits	1	OHAUS	2006	Weigh sample	Working	E.E.C1
2	Bomb clorimeter	1	Parr C6100	2001	Measure energy in the sample	Working	ACIAR
3	MARSXpress microwave	1	CEM MARSXpress	2006	sample digestion	Working	E.E.C1.5(4.1)
4	Soxhlet Extractors - SER 148 Series/6	1	Velp	2006	Lipid extraction	Working	E.E.C1.5(4.9)
5	Oven OV-12	1	Jeiotech OV12	2006	Dry sample	Working	E.E.C1
6	Freezer SANYO SF-C21KF(A)	1	SANYO	2012	Feed and samples storage	Working	SUPA
7	Balance 4 digits SATORIUS BP 210 S	1	SATORIUS	1998	Weigh sample	Working	ACIAR
8	Kjeldahl Digestion Units UDK-142	1	Velp	2006	Nitrogen/Protein analyzer	Working	E.E.C1
9	Freezer -40°C Westpoint FC 204	1	Westpoint	2006	Feed and samples storage	Working	E.E.C1.4(4.9.1)
10	Freezer -20°C (SANAKY)	1	Sanaky	2012	Feed and samples storage	Working	CUD
11	Furnance Gallenkamp Size 2	1	Gallenkamp	1996	Burn sample	Working	WES
12	Big Oven WTB Binder	1	Binder	1998	Dry sample, feed	Working	VLIR
13	Small oven Gallenkamp Size 1	1	Gallenkamp	1996	Dry sample	Working	WES
14	Kjeldahl Digestion Gerhardt	2	GERHARDT	1996	Nitrogen/Protein analyzer	1 working, 1 Broken	WES
15	Kjeldahl Distillation Gerhardt	2	GERHARDT	1998	Nitrogen/Protein analyzer	1 working, 1 Broken	WES
16	Kjeldahl Distillation Gerhardt Vapodest 20	1	GERHARDT	2013	Nitrogen/Protein analyzer	Working	Advance in Aquaculture
17	Soxhlet Extractors Gerhardt	1	GERHARDT	1998	Lipid extraction	Working	WES
18	Kjeldahl-UDK 142 Automatic Distillation Unit	1	Velp	2006	Nitrogen/Protein analyzer	Working	E.E.C1.5(4.8)
19	FIWE Raw Fiber Extractor	1	Velp	2006	Fiber analyzer	Maintaining	E.E.C1.5(4.9)
20	Soxhlet Extractors Gerhardt	1	GERHARDT	2013	Lipid extraction	Working	Advance in Aquaculture
21	Soxhlet Extractors Gerhardt	1	GERHARDT	2013	Fiber analyzer	Working	Advance in Aquaculture

LAB: Aquatic Pathology

No.	Equipment name	Quantity	Manufacturer/ Country of origin	Year of procurement	Use	Working or not working	Project / Funding source
1	Acson freezer, Model: ACF56FR, Sn: 2053310912709		Malaysia	2011	use	working	Dept. of Aquatic pathology

2	Sample storage cooler, Model: LC- 633A, Sn: 7110SHA-2458	ALASKA -VN	2011	use	working	Dept. of Aquatic pathology
3	Thermal cycler	Bio-rad, USA	2006	use	working	World Bank
4	Test tube shaking machine	Retberg, Germany	2006	use	working	World Bank
5	Vortex	Retberg, Germany	2006	use	working	World Bank
6	Gel Doc	Bio-rad, USA	2006	use	working	World Bank
7	Hand Oxygenmeter, Model: Oxi 330i, Serial: 05421911; 05460350	WTW, Germany	2006	use	working	World Bank
8	Compound microscope; Model: CX21; Serial: 6C23122; 6C18516	Olympus, Japan	2006	use	working	World Bank
9	Analytical balance; Model: CP622; Serial: 19102815; 19102814	Sartorius, Germany	2006	use	working	World Bank
10	Spindown centrifuge Model: Minispin Plus Sn:543AP662496	Hsx: Eppendorf - Đức	2011	use	working	Advanced Aquaculture programe
11	Magnetic sizer; Model CB162; Sn: R300003937; R300003975	Bibby, China	2011	use	working	Advanced Aquaculture programe
12	Dry incubator; Model: L001 - III; Sn: M0622088	Kisker Biotech – Germany	2011	use	working	Advanced Aquaculture programe
13	Biological safety cabinet; Model: SC2-4A1; Sn: 2011-64858	ESCO – Singapor (Indone	2011	use	working	Advanced Aquaculture programe
15	Incubator; Model: ICP 500; Sn: K5M.0103	Memmert – Germany	2011	use	working	Advanced Aquaculture programe
17	Centriguge; Model: 5430; Sn: 5427B0016357	Eppendorf - Đức	2013	use	working	Advanced Aquaculture programe
18	Microtome; Model: CUT 4062 ; Sn: A120063	Slee - Germany	2013	use	working	Advanced Aquaculture programe
19	Electrophoresis; Model: Sub Cell GT - PowerPac HV	BioRad (USA)	2006	use	working	C1
20	Vertical electrophoresis; Model: Mini PROTEAN 3-2 -D Cell; Serial: 525BR 065247Serial: 004BR 0426	BioRad (USA)	2006	use	working	C1
21	Gel Doc; Model: Bio-Print 215; Serial: 05 14633	VILBER LOURMAT (Franc	2006	use	Not working	C1
22	ADN sequencer; Model: 3130xl; Serial: 17214-026	AppliedBiosystems (USA)	2006	use	Not working	C1
23	Gene transfer electromagnetic pulse; Model: Gene Pulser Xcell Total; Serial: 61BR104028	Bio-Rad Laboratories (US	2006	use	working	C1
24	Real-time PCR; Model: 7500; Serial: 275001590	AppliedBiosystems (USA)	2006	use	working	C1
25	Thermal cycler; Model: 9700	AppliedBiosystems (USA)	2006	use	working	C1
26	Gradient thermal cycler; Model: iCycler	Bio-Rad Laboratories (US	2006	use	working	C1
27	Hybridizer Oven; Model: HB-1000; Serial: 080205-002	UVP (USA-UK)	2006	use	working	C1
28	Microplate reader; Model: Multiskan Ascent	Thermo Electron (Finland)	2006	use	working	C1
29	Colony counter; Model: Colony counter; Serial: - 2331/600; - 2332/600	IUL (Spain)	2006	use	working	C1
32	Centrifuge (0.5 ml); Model: Milro 22R; Serial: + 0008525-08-00	Hettich (germany)	2006	use	working	C1
33	Centrifuge (1.5 ml); Model: EBA21; Serial: + 0002335-03-00; + 0002333-03-00	Hettich (germany)	2006	use	working	C1
34	Vacuum centrifuge; Model: Modul 3180C; Serial: Ms-05081003	Hanil Science Industrial (S	2006	use	working	C1
35	Cool centrifuge; Model: ROTANTA 460 R; Serial: 0000442-03-01	Hettich (germany)	2006	use	working	C1
36	Freezer (-20oC); Model: Superpolo 320; Serial: + 16019; + 16021	Fiocchetti (Italy)	2006	use	working	C1
37	Freezer (-45oC); Model: ILS-DF8513E; Serial: + 050649; + 050651; + 050652; + 050653	Nuaire (USA)	2006	use	working	C1
38	Freezer (-80oC); Model: BU-6502; Serial:+ 50404664; + 50404665	Nuaire (USA)	2006	use	working	C1
39	Automatic Microtome; Model: HM-525 Cryostat; Serial: 33000	Microm (Germany)	2006	use	working	C1
40	Tissue processing and embedding; Model: SPT 120 and EC350; Serial: 32982	Microm (Germany)	2006	use	working	C1
41	Automated tissue staining machine; Model: HMS 70; Serial: 35241	Microm (Germany)	2006	use	Not working	C1
42	Microscope (micro-level manipulation); Model: "Axiovert" 40 CFL; Serial: 3827000865	Carl Zeiss (Germany)	2006	use	working	C1

43	Fluorescence microscope with camera; Model: "AXIOSKOP" 40 FL; Serial: 3311001090		Carl Zeiss (Germany)	2006	use	working	C1
44	Microscopes for 10 observers with camera; Model: "AXIOSKOP" 40; serial: 3308002869		Carl Zeiss (Germany)	2006	use	working	C1
45	Stereoscopic microscope; + Model: "Stemi"2000-C; Magnification: 1X~10X ; Serial: 39369; Model: Axiostar plus		Carl Zeiss (Germany)	2006	use	working	C1
46	Phase contrast microscope; Model: "Axiostar" Plus and "Axioskop" 40FL; + Model: Axiostar plus; Serial: 3108019679; Magnification: 100~1000X; Serial: 3308001938		Carl Zeiss (Germany)	2006	use	working	C1
47	Compound microscope; Model: BBI; Magnification: 40X~1000X; Serial: 0212396; 0212448; 0212434; 0212456		Novex (Holland)	2006	use	working	C1
48	Kính lúp giải phẫu; Model: "Stemi" DV4; Magnification: 1X~4X; Serial:2001016182; 2001016187; 2001013647		Carl Zeiss (Germany)	2006	use	working	C1
49	Kính lúp thường; Model: "Stemi" DV4; Magnification: 1X ~ 4X (Switchable); Serial: 2001016283; 2001016231		Carl Zeiss (Germany)	2006	use	working	C1
50	Autoclave 50 L; Model: HV-50; Serial: 30305050148		Hirayama (Japan)	2006	use	working	C1
51	Autoclave 80 L; Model: HV 85; Serial:30405080136		Hirayama (Japan)	2006	use	working	C1
52	Tablet autoclave; Model: SA 232; Serial: + 050406001-012; + 050406001-015		Sturdy (Taiwan)	2006	use	working	C1
53	Hot magnetic stirrer; Model: HP 3000; Serial: 0508-03; 0508-05; 0508-07; 0508-08; 0508-09		Jeiotech (South Korea)	2006	use	working	C1
54	Shaking machine; Model: SK 300; Serial: + L029064		Jeiotech (South Korea)	2006	use	working	C1
55	Mixing machine; Model: VX 100; Serial: 50926133; 50926129; 50926135; 50926134		Labnet (USA)	2006	use	working	C1
56	Orbital shaking incubator; Model: HM-4000; Serial: 082905-001		UVP (USA)	2006	use	working	C1
57	Incubator; Model: ON-12G; Serial: + K089047; + K089052		Jeiotech (South Korea)	2006	use	working	C1
58	Ice making machine; Model: BF-80		Fiocchetti (Italy)	2006	use	Not working	C1
59	Toxic fume hood; Model: Purair 10; Serial: + P50362; + P50363		Hsx: AirScience (USA)	2006	use	working	C1
60	Analytical balance (2 decimal); Model: TE-612; Serial: + 17605480; 17606231		Sartorius (Germany)	2006	use	working	C1
61	Analytical balance (3 decimal); Model: CP323S; Serial: 16809540		Sartorius (Germany)	2006	use	working	C1
62	Analytical balance (4 decimal); Model: CP 224S; Serial: 17605931		Sartorius (Germany)	2006	use	working	C1